

ARMY

JUNE 1958 • 50¢



Red Holes Strong: 1975-1958

You wouldn't use this Gatling Gun today—

WHY USE ANTIQUE TRAVEL METHODS?



Gatling gun—circa 1898
Fired by turning hand crank

FLY YOUR MEN — SAVE TIME AND MONEY!

Slow surface travel can be extremely costly in terms of per diem allowances and pay dollars. In many cases, the actual cost of the ticket is even more than for a Scheduled flight. Your highly trained specialists and other essential manpower will reach their vital posts *five times faster*—and often dollars cheaper—by flying the Scheduled Airlines.

COMPARE THESE RAIL-AIR COSTS!

A train trip from Baltimore to Seattle costs the government \$150.31, including Pullman and meals. Travel time: 63 hrs. 30 mins. The same trip by SCHEDULED AIRLINES costs just \$140.70, including meals. Travel time: 7 hrs. 55 mins.

SAVINGS BY AIR:

MONEY — \$9.61 TIME: 55 hrs. 35 mins.

10% Discount for Official Travel on TR's

THE CERTIFICATED

Scheduled Airlines

OF THE U. S. A.



ALASKA AIRLINES
ALLEGHENY AIRLINES
AMERICAN AIRLINES
BOEING AIR LINES
BRANIFF AIRWAYS
CAPITAL AIRLINES

CENTRAL AIRLINES
CONTINENTAL AIR LINES
DELTA AIR LINES
EASTERN AIR LINES
FRONTIER AIRLINES

LAKE CENTRAL AIRLINES
LOS ANGELES AIRWAYS
MOHAWK AIRLINES
NATIONAL AIRLINES
NEW YORK AIRWAYS
NORTH CENTRAL AIRLINES

NORTHEAST AIRLINES
NORTHWEST ORIENT AIRLINES
OZARK AIR LINES
PIEDMONT AIRLINES
SOUTHERN AIRWAYS

SOUTHWEST AIRWAYS
TRANS-TEXAS AIRWAYS
TRANS WORLD AIRLINES
UNITED AIR LINES
WEST COAST AIRLINES
WESTERN AIR LINES

DEPENDABLE. SCHEDULED SERVICE SAVES MILLIONS OF VALUABLE MAN HOURS FOR THE MILITARY



THE ARMY'S H-23D RAVEN: INVESTMENT IN TOMORROW

Over 20 major improvements distinguish the H-23D as one of today's most advanced helicopters. But several features in particular verify its unmatched *growth potential*, which is a prime requisite for the evaluation of any helicopter investment.

Basic Ruggedness: The H-23D has the highest flight and landing load safety factors of any two or three place helicopter flying today.

Component Life: The H-23D's 250 horsepower is available full-time, without restrictions warning of jeopardized service life. In fact, all existing components are *designed* to accept considerably greater horsepower and to attain an overhaul period beginning at 1000 hours.

Functional Versatility: More power...more cabin space...further qualify the H-23D as a multi-mission helicopter, backing up a basic Army concept: more utility from fewer units.



The H-23D is now prepared to receive a new 305 horsepower engine, without further major modification. The resulting UH-12E (prototype now flying) has already demonstrated a performance which will capture new missions beyond those previously conceived for this helicopter class.



HILLER HELICOPTERS

PALO ALTO, CALIFORNIA

Modern defense in action:*



PAINTING BY CHESLEY BONESTELL

The threat...mass bomber attack across the

You are on radar duty at America's Dew Line—near the top of the world — and spot a mass of bombers approaching at supersonic speed. Another Pearl Harbor?

Not likely! Your warning signal alerts a defense system which is in being now. Fighter planes streak out in a matter of minutes, armed with rockets like the Air Force *Genie* — a Douglas built missile which can down an entire bomber

formation with one blast.

In addition, our Army is ready for any aircraft that filter through with ground-based Nike Ajax and the still more potent, nuclear-armed Nike Hercules—both produced by Douglas. Radar-guided, these missiles can take out fast aircraft despite all evasive action.

It is no accident that we are now ready for attack from



***Defensive systems**—Military leaders cannot afford to wait until an enemy strikes. Plans must be in being to meet any contingency . . . any type of attack. And the physical means of meeting this attack . . . vehicles, weapons and trained men . . . must be ready, too!

North Pole

Search radar antenna mounts 24 hour guard at edge of Arctic Circle . . . flashes immediate warning to defense centers

across the North Pole. Such problems were anticipated by our Army, Navy and Air Force planners years ago. Industry became their partner in finding a solution. Douglas, for example, was asked to develop Nike in 1945, and has been working on rockets since before Pearl Harbor—in 1941. This same forethought is in action right now, perfecting the systems of defense needed against tomorrow's aggressors.

Depend on
DOUGLAS
first in Missiles



ARMY

magazine of the ASSOCIATION OF THE UNITED STATES ARMY

Vol. 8

No. 11

June 1958

EDITOR & PUBLISHER

Lt. Gen. Walter L. Weible, USA, *ret.*

ASSISTANT PUBLISHER

Col. Arthur Symons, *Arty-USAR*

Assistants—Arthur S. Welch, Esther E. Bennett, Marguerite M. Mattison, C. M. Pierce, La Rue W. Stump, Mildred M. Guthrie, Lois Jordan, Dianne Roth, Robert Coleman

EXECUTIVE EDITOR

John B. Spore

Assistant—Barbara T. Hackney

ASSOCIATE EDITORS

N. J. Anthony
James C. V. D. Brown

ADVERTISING & PROMOTION DIRECTOR

Col. Robert F. Cocklin, *Arty-USAR*

Assistants—Katherine Ahearn, David Miller, Karen Hershfield, Carol Payne

CIRCULATION MANAGER

Dominic Mulloy

Assistants—Frances C. Van Dornes, Emma O. Snellings, Mary Jo Schaffner, Louise E. Ryan, Helen Rivera, Joyce Blair, Genevieve Olive

ARMY is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army. *ARMY* magazine strives to—

Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

Advance the status of the soldier's profession.

—AUSA By Laws, Par. 13 Article II

THE ARMY'S 183d BIRTHDAY

Cover: The U. S. Army: 1775-1958. Design by Lou Nolan
183 Years. Col. James Warner Bellah 24

STRATEGY

National Strategy and Modern Weapons.

Brig. Gen. William B. Bunker 28

THE SPIRIT OF THE SOLDIER

"Do Ye Even So to Them." Sgt. Henry P. Walker 39

How Do You Get That Pride? ... Brig. Gen. Edwin H. Randle 53

TACTICS & TECHNIQUES

Move the Artillery Closer to the Infantry. ... Maj. David E. Ott 37

New Training Aid for Radar Operators. ... Capt. Robert L. Hogan 40

Missile Division. Lt. Col. Harry C. Beaumont 49

LOGISTICS

Iceberg Dodgers of the Transportation Corps.

Maj. Gen. Evan M. Houseman 42

ROLES & MISSIONS

Another Fable for Today. Maj. Gamma Ray 47

EDUCATION & TRAINING

256,000 Seconds 14

Bridging the Linguistic Gap. Col. Walter E. Kraus 34

The Officer's Professional Education. Col. John D. Byrne 60

DEPARTMENTS

The Month's Mail 6 The Month's Celebrations .. 64

Editorials 12 1958 Reunions 67

The Army's Month 16 Irons in the Fire 68

The Month's Reading 58 The Month's Books 70

AUSA Regional Activities .. 76

ARMY is published monthly by the Association of the United States Army. Publication date: 25th of preceding month. Publication, Editorial and Executive Offices: 1529 Eighteenth Street, N.W., Washington 6, D. C. Copyright©, 1958, by Association of the United States Army. Entered as Second Class Matter at Washington, D. C., additional entry at Richmond, Va., under the Act of March 3, 1879. Articles appearing in *ARMY* do not necessarily reflect the opinions of the officers, or members of the Council of Trustees of the Association of the U. S. Army, or the editors.

RATES. All new memberships and subscriptions payable in advance. One year \$5; two years \$9; three years \$12. These rates apply to libraries, civilian groups or activities, other groups not eligible for

membership in AUSA, and foreign subscriptions (all foreign subscribers \$1 per year additional for postage). For other rates write Circulation Manager, 1529 Eighteenth Street, N.W., Washington 6, D. C. **ADVERTISING** information and rates available from the Advertising Director or any of our advertising representatives, who are:

New York office—Walter E. Barber Co., 516 Fifth Avenue, MUrray Hill 2-5253.

Chicago office—6 N. Michigan Ave., RAndolph 6-9590.

San Francisco office—Duncan A. Scott, 85 Post Street, Garfield 1-7950.

Los Angeles office—1901 West 8th Street, Dunkirk 8-4151.

AROUND THE WORLD WITH SIKORSKY HELICOPTERS



ANTI-SUBMARINE DUTIES—New weapons systems have immeasurably strengthened the U.S. Navy's capabilities in anti-submarine warfare. A key role is assigned to HSS helicopters (Sikorsky S-58s) equipped with sonar. These

are the Navy's only anti-submarine helicopters. Three are shown here operating from a carrier during anti-submarine warfare exercises at sea. S-58-type helicopters are widely flown in both military and commercial service.



AIRBORNE RATIONS—A twin-engined Army H-37 (Sikorsky S-56) lifts a sling load of C-rations during tests at Laguna Airstrip, Yuma, Arizona. The largest known operational helicopters in the world, versatile H-37s have transported heavy Army missiles, vehicles, and artillery pieces.



HIGH ALTITUDE TRAINING—Seventy Marine Corps pilots and crew members tested performance of HUS helicopters (Sikorsky S-58s) at high altitudes and in extreme cold in the mountains of California. Aircraft were flown at 12,500-foot altitude, operating despite snow and ice.

SIKORSKY AIRCRAFT
STRATFORD, CONNECTICUT
One of the Divisions of United Aircraft Corporation



★the Fatigue Cap that never shows Fatigue!

And No Wonder! It keeps you looking sharp on the toughest duty! Stands any abuse. Collapse it, step on it, sit on it—it springs right back into shape—no extra stiffeners required!

- **WON'T WRINKLE**
- **WON'T SAG**

Wind resistant. water repellent
Can be dry cleaned.

INSIST ON THE NAME
Spring-Up
ON THE RED AND GREEN LABEL
INSIDE YOUR CAP
IT IS YOUR GUARANTEE

GET IT AT YOUR EXCHANGE

If not available, order by mail. Sent prepaid anywhere in the world.

ONLY \$2.00 postpaid
Be Sure—Specify your size

#8590 with inside ear flap
#8593 without flap

Write for Quantity Prices

Louisville
CAP CORP.

303 S. 30TH STREET
LOUISVILLE 12, KENTUCKY

WE KNOW WHERE YOU'RE GOING

when you send us that change of address, but we also want to know where you've been. Our Circulation Department's electronic system of addressing your magazine is set up according to members' addresses, so we must have your old address as well as the new. PRINT THEM, along with your name, on a postcard, PO Form 22-S, or DA Form 1846, and send to **Circulation Manager**, 1529 18th St., NW, Washington 6, D. C. If possible, attach the address label from your magazine.

THE MONTH'S MAIL

Leadership in Small Units

• I would like to add a little from my personal experience as an infantry officer to what Lieutenant Colonel A. P. Hobrecht said in "Minority Report on Command Duty" [February]. (Incidentally, I was a rifle- and weapons-company commander in Colonel Hobrecht's battalion during my last ten months in Korea.)

Having been an enlisted man (and a master sergeant for more than nine years) before being directly commissioned in the Infantry in 1951, I have had opportunity to observe and serve beside some of the outstanding commanders of World War II, including General Gavin, who was my regimental and division commander in the 82d Airborne. Through this wonderful experience it was not difficult for me to handle the various problems I encountered in an infantry unit after receiving my commission. But how about the young officer with much less experience, even after completing the basic course at his service school, and serving three months in some type of unit within the Zone of the Interior before going overseas?

I feel that often the older officers with more experience think it is not their job to help the young ones who have more difficulty in adjusting themselves to a complex army. The older officer feels that when he was new no one led him by the hand. I don't say we should lead our inexperienced officers by the hand, but we can make ourselves approachable. If we do that the young men will put into action what we teach them out of our own experience. Then they'll understand why things must be done the Army way and not their way.

I feel very strongly that the small-unit commander is the backbone of our training program for young officers, especially within the combat arms. Since the new officer gets his first duty in a company or battery after completing the basic course at his branch school or OCS, it behooves all of those in command spots to do their utmost to see that company commanders are officers who have a love for Army life, and who will inspire those under them. I feel that this is the key that solves the problem. I also feel that if the question, "Did your company commander at your first assignment inspire you and leave an everlasting impression with you?" were

answered by great leaders like the Eisenhowers, the Taylors, the Ridgways, and the Gavins, they would certainly tell a story that would inspire all career soldiers.

CAPT. JEROME E. RUSSELL
Fort Holabird, Md.

Britain's Small Arms

• Having just finished reading Mr. Jac Weller's article in the April issue, I should like to offer some corrections.

Firstly, the British EM-2 is classed as a "self-loading rifle," SL for short, not as a submachine gun. The original 7mm versions of the EM-2 and FN were tested together, and the EM-2 came out ahead. When, however, the NATO round was adopted, the modified versions of both weapons were found to be nearly equal in performance, and the FN was chosen as being simpler to teach and maintain.

The Sten gun is of 9mm caliber, not .303, was always unpopular, and is fast being replaced by the "Sterling," of improved performance and reliability, and of the same caliber.

The Vickers medium MG is to be replaced by a new gun now under trials, and the PIAT, which was a spigot mortar, not a rocket launcher, was replaced years ago by the British version of the 3.5-inch rocket launcher.

We regard the Bren as a true machine gun, not as an automatic rifle. A good operator can load and fire five 28-round magazines in a minute, using short, aimed bursts of three to five rounds. It is an extremely accurate gun, which can be a disadvantage, as the beaten zone is small.

Both the British light rifles, produced at the end of the war, could fire rifle grenades.

Now to organization and tactical doctrine.

The section consists of ten men, not seven, including one Bren gun. In Korea, a second Bren was included, but this was used only in defense and not carried in attack.

The doctrine for attack splits the section into a Bren group and a rifle group. These advance in bounds, covering each other, until the rifle group assaults with grenades supported ideally by close-range Bren fire from ninety degrees to the flank.

The platoon has three sections, and in addition a 2-inch mortar mainly to

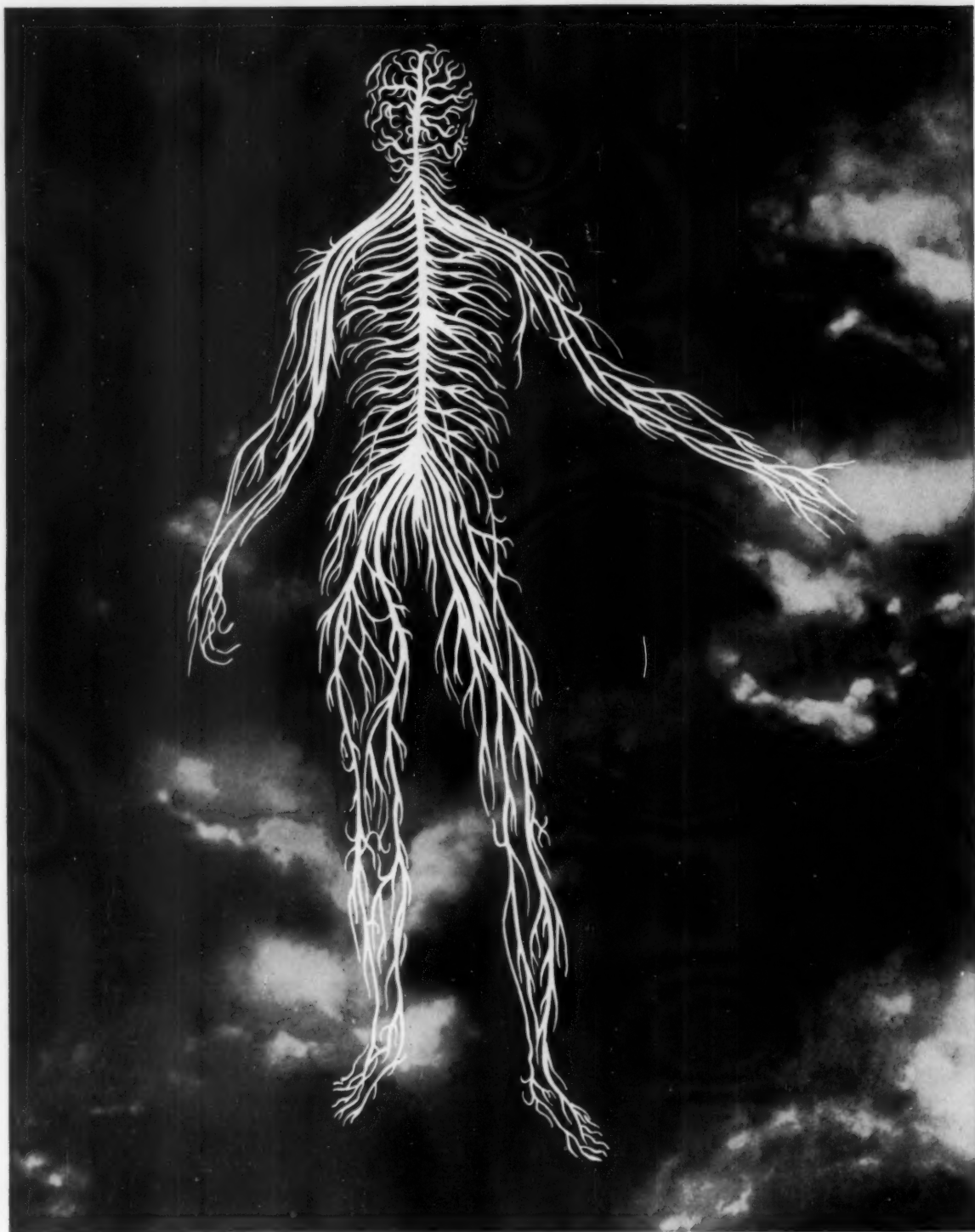


"SAC" . . . the mailed fist and the velvet glove

The greatest factor in keeping the cold war cold is our Strategic Air Command. This group of men has the supreme responsibility of preserving the peace of the world and its harnessed might is our best defense. The esprit de corps of these dedicated men has been whetted to a razor's edge and nowhere on earth is there a finer example of teamwork. Evidence of this kinship is the Kaman crash rescue helicopter — a velvet glove to stand on the alert with SAC's mailed fist.

THE *KAMAN* AIRCRAFT CORPORATION • BLOOMFIELD, CONNECTICUT

PIONEERS IN TURBINE POWERED HELICOPTERS



WHAT IS "TOTAL ELECTRONICS"?

The picture suggests the answer.

In the new world of missiles and space systems to come, it's the *total* complex of control, guidance and communication—the whole interrelated nervous system correlating the eye, the hand, the head and the heart of the missile to that of man himself.

And in the company producing that missile, it's the *total electronics capability* necessary to specify, design, create and test this central nervous system as an integral part of the whole machine—from its conception, through delivery to the customer, to the final completion of its mission.

In the period of a dozen years since the word "electronics" first gained common currency in our industry, Martin has been systematically building toward just such a total electronics capability.

As a result of the rapid evolution in advanced electronics development, today one-third of all Martin engineering manpower is devoted to the electronics requirements of our customers' present and future products. And a major part of Martin's investment is in the special facilities necessary to this new concept of total electronics.

We believe that this capability is essential to our increasingly important function as a prime contractor to all branches of the military.

MARTIN
BALTIMORE • DENVER • ORLANDO

fire smoke, and a 3.5-inch rocket launcher. The latter, together with the two rifles fitted for Energa antitank grenades in each section, is not regarded as of prime importance in antitank defense.

To sum up, the basic weapons system is LMG/grenade. Each company has three of these platoons, and four companies go to a battalion. The battalion also includes a support company, with *all* the heavy weapons, six BAT (very powerful towed recoilless AT guns), six medium machine guns, and six 3-inch mortars.

The MMGs are not used for direct fire, but for map fire at up to two thousand yards. In defense, they are used in conjunction with the mortars to break up attacks before they can get started, the mortars being used to force the enemy into the MMG's killing zones.

Artillery and tank support is very intimate, making up for any shortage of infantry heavy weapons.

The standard 25-pounder field gun, and battery organization, are designed for speed in delivery of fire, rather than for very high firepower.

In very difficult country, where tanks and guns are limited, artillery units equipped with 4.2-inch mortars are used as a supplement. These were especially useful in Korea.

A battalion in an infantry brigade will normally have its own private armor in the twelve tanks of its affiliated tank squadron (battalion). This will include three heavy tanks with 120mm guns in the near future.

I should like to see other articles of the same general type. Material for one would be provided by the varying antitank doctrines and weapons. For example, there is a very wide difference between the U. S. jeep-mounted 106mm recoilless rifle and the British 120mm towed recoilless rifle, not to mention the French guided missiles.

PHILIP BARKER

Birmingham, England

Naming E-8 and E-9

● Since it is rather certain that the grades of E-8 and E-9 will be created, what shall we name them? Generally the thinking is in terms of a fancy master sergeant or some title that sounds better.

I think we don't need any more master sergeants, but more privates. Let's revive the buck sergeant with his three stripes and create another grade of private. I will illustrate with the infantry company.

The assistant squad leader or team leader could be a corporal (E-5); the squad leader, a buck sergeant (E-6); the platoon sergeant, the rank of old staff sergeant or equivalent (E-7).

Reserve E-8 (sergeant first class or old technical sergeant) and E-9 (master sergeant) for more responsible jobs as plan-

ned. But make the stripes mean something. The first sergeant could be E-8 or E-9. Most of the other company sergeants could be E-7 or E-6. The E-8 could be allocated to battalion level and E-9 to regimental level, normally to head noncommissioned staff sections.

There would be no stripes for E-1, E-2 or E-3. E-4 would have one, E-5 two, and so on. The Air Force could follow the same pattern, and the Navy's system could be left as it is now, with the recruit having no stripe. Possibly we could give the petty officer's eagle to the master sergeant.

I would have no ceiling on achieving E-4. From there on it would be by filling vacancies, with possibly some provision for promotion above TOE authorization for highly deserving people. This would have to be closely supervised to avoid misuse. Proficiency pay will largely take care of that, but there may be cases where stripes will have more significance.

The sergeant major would be E-9. To distinguish him let's follow the suggestion made by the author of a Cerebration that appeared several months ago. ["More Rank for Senior Sergeants," August 1955.] Placed similarly to the first sergeant's diamond, he would have an oak leaf at battalion level, eagle at regimental level, and so on. These ranks should receive extra pay based on present ratios.

Further, I should change that part of the UCMJ which provides that now a soldier will be reduced to the lowest grade (E-1). Let the court say whether the reduction should be to E-1 or E-2. Normally it should be to E-2, to preserve the grade of recruit as a training rank only. Promotion from E-1 to E-2 should be automatic, or should follow basic training if no specified period is set, with examination included. All other promotions should be based on examination.

What to do about present ratings who would be over-ranked and overpaid? Since E-8 and E-9 are new, there is no pay problem. There may be a morale problem when stripes or rockers are taken away, but I think that when it is found not every Tom, Dick or Harry will be handed a set, their value will be more appreciated and morale would be raised.

ROBERT E. THORNE

Livonia, Mich.

13th Engineers Veterans

• In order to bridge the gap between the historically incomplete years and the unit's current service, the officers and men of this battalion would like to install display cases in dayrooms and clubs. We are searching for official documents, original regimental and battalion coats of arms or colors, photographs of former commanders, small items of personal

and/or Engineer interest, and any other items that in some way form part of our history.

We solicit the help of former members of the 13th Engineer Regiment and/or Battalion.

LIEUT. GEORGE C. MILLER, JR.
Information Officer

13th Eng Bn (Inf Div)
APO 7, San Francisco, Calif.

Make Your Own Adventures

• Lieutenant Colonel C. A. Kennedy's letter [March 1958] lamenting the lack of adventure in the peacetime Army is appropriate. However, I disagree when he says we must continue to gear our program to attract the man who prefers adventure. We have never attracted such a man. Ninety per cent of the people in the Army want nothing more adventurous than an afternoon of golf or bowling, or an evening in front of the TV set.

Lowell Thomas once remarked that he had experienced adventure on the streets of New York. This is undoubtedly true, for adventure is where you make it. It would be fine if the Department of the Army would approve extended leaves as proposed by Colonel Kennedy, but until that time the soldier-adventurer will have to generate his excitement within the confines of the authorized thirty days.

Now if Colonel Kennedy's three young lieutenants really crave adventure, they are in an excellent position to find it. They may do these things I did while stationed in Germany. Take a leave and paddle a kayak across the English Channel (from Dover to Cap Griz Nez), and then climb the Matterhorn, all within ten days. If these aren't strenuous enough, climb Mont Blanc. For something even more difficult, they might try a ten-day cross-country ski tour in weather 30 below zero.

Perhaps their adventurous inclinations lean to thrills of a less fatiguing type. In that case I can recommend that they sell the family bus, buy a snarling, low-slung foreign sports car, and take up road-racing. I'll guarantee a spinning skid in an S-turn or the thrill of properly cornering the machine through a U-turn will supply the average man with all the adventure he can handle.

I don't believe such antics will match the heroics of Halliburton or the hell of Hemingway, but they have one advantage: each is within the financial means of the average officer (and many enlisted men).

By now the point should be obvious: those seeking adventure can find it, and the remainder can, as Colonel Kennedy puts it, follow their sedentary careers.

I would enjoy a tour of duty in Colonel Kennedy's command.

SFC CHANDLER W. BERGEN
Manchester, NH

get your INVESTMENT facts straight

The new booklet, "Investment Facts," should be "must" reading for servicemen and women planning their financial futures now. It's informative, timely, easy to read—and among its features is a listing of stocks that have paid cash dividends every three months for 20 years or longer.

"Investment Facts" is recommended by the Armed Forces Department of Harris, Upham & Co., the nationwide brokerage firm which has served investors for more than 60 years. And, as part of its specialized investment service, Harris, Upham offers copies of this booklet free to military personnel.

So, to get the facts on investing—and to get them straight—simply fill out and mail the attached coupon. There's no obligation, of course.



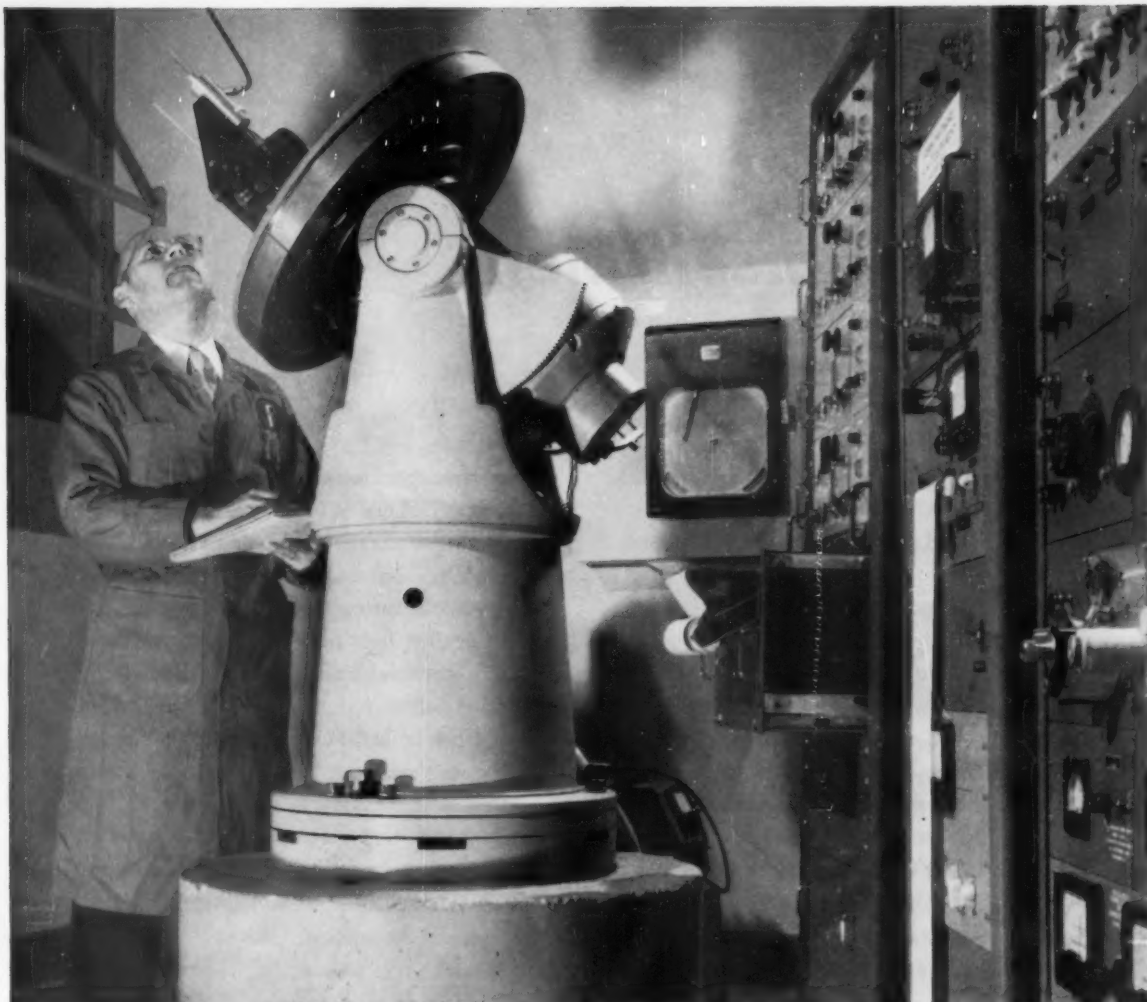
ARMED FORCES DEPARTMENT, HARRIS, UPHAM & CO.

Members New York Stock Exchange

1505 H Street, N.W., Washington, D.C., Attn: General John E. Dahlquist, USA Ret.

Gentlemen: Please forward promptly a free copy of "Investment Facts" **AT**

Name _____ Rank _____
Post or _____
A.P.O. _____ City _____ Zone _____ State _____



Ford Instrument Co. Engineer checks air-bearing gyro for angular drift on equatorial test stand. Test can show up drift rates as low as one revolution in 40 years. Tests like this . . .

helped Army put "Explorer" into orbit

Some of Ford Instrument's current or recent programs include:

- Inertial guidance systems . . . including Redstone and Jupiter
- Missile launching and control order computers
- Navigational and mission control systems and computers
- Analog and digital computer systems
- Fuzing, arming and other warhead control equipment
- Plotting equipment
- Nuclear systems and controls
- Gunfire controls
- Drone controls

A special guidance system for the Jupiter C, developed by the Army Ballistic Missile Agency, was used to launch the first U. S. artificial satellite into space.

Many components of this system were provided by Ford Instrument Co., prime contractor for both the "standard" U. S. Army Redstone and Jupiter guidance systems.

The fabulously-equipped, fantastically-clean gyro lab (above) is only a small part of the advanced research and

development facilities available at Ford Instrument Co. They're used to create and produce the incredibly accurate control systems called for by modern technology in both government and industry.

And Ford Instrument's large-scale precision manufacturing facilities can turn even the most critical system requirements into working "hardware" on a quantity-production basis. Our Liaison Engineers are at your service to discuss your system requirements. e.e



FORD INSTRUMENT CO.

DIVISION OF SPERRY RAND CORPORATION
31-10 Thomson Avenue, Long Island City 1, New York
 Field Sales Offices: Beverly Hills, Calif.; Dayton, Ohio

Do-It-Yourself Men

"SOLDIERS, when they make speeches, should say few words, and speak them to the point," Major Thomas (not yet Stonewall) Jackson told his VMI cadets on the eve of Secession. From General Joseph Warren's "Don't fire until you see the white of their eyes" at Bunker Hill to General Matt Ridgway's "The job is to kill Chinese," in Korea, American soldiers have quite faithfully spoken to Stonewall's point and one consequence has been that their actions have spoken for them in quite adequate measure.

Colonel James Warner Bellah (*page 24*) celebrates the U. S. Army's 183d birthday with the theme that the U. S. Army has above all been more a family than an institution and has practiced "togetherness"—a tough, self-reliant "togetherness" and not the bland pabulum that we are surfeited with today.

There is much more to the U. S. Army than "togetherness." In its tough self-reliance there is a lot of "do-it-yourselfism," too—a pure, unadulterated and practical approach to the task of getting along with the job.

There was U. S. Grant. Eighty-eight years after that 15 June 1775 that the U. S. Army now recognizes as the day of its birth, Grant was getting on with closing in on Vicksburg in a do-it-yourself campaign that attempted and *did* things that no writer of a military textbook had ever dreamed of doing. And as

though to punctuate the practical over the theoretical, there is Grant's answer to Rosecrans's argument that he wouldn't attack Bragg in eastern Tennessee during the Vicksburg campaign because all of the "maxims of war warn against fighting two decisive battles at once." "It would be bad to be defeated in two decisive battles fought the same day, but it would not be bad to win them," was Grant's answer to that.

That was speaking to the point, and be it remembered that Rosecrans wasn't saved at Chickamauga by military maxims but by the "Rock of Chickamauga"—a do-it-yourself fighting man by the name of George H. Thomas.

There are, of course, an unfortunate few who never learn the virtue of Jackson's admonition and who find it not at all difficult to talk at great length, hardly making a single sensible statement. These gentlemen are terrible bores but occasionally they are magnificent fighting men, too, and for that we can forgive them their garrulity. Sherman comes to mind. He was a great talker, but doesn't fit our category at all, since he was, so his contemporaries have told us, never a bore. In the years after the Civil War to have been a "Sherman Bummer" was as great an accolade as to have been a member of Patton's Third Army is today. Both were very much do-it-yourself commanders of do-it-yourself armies.

IT takes all kinds of soldiers to make an army, and even the textbook addicts like Rosecrans and Halleck have a place, if only as a buffing stone against which the do-it-yourself soldiers can rub their practical approaches into perfection.

Does not much of the resistance to the "school solution" arise out of this practical, get on with the job, do-it-yourself drive of the American soldier? And is not a reasonable amount of this kind of resistance therefore healthy? We think so.

This vote of confidence in the intelligent grasping of the initiative, which is what do-it-yourself mostly is, isn't anti-intellectualism run wild or dogmatic assertion that the only military learning worthwhile is taught in the school of hard knocks. Far from it. It's anti-dilettantism, anti-form over substance. It's saying the Army should be always on guard against the over-educated and under-learned. The kind of person who talks learnedly about the dynamics of societal development (as an example) but who is less able than a third year ROTC student to apply sensibly the principles of 100-5 to a given situation. Fortunately there are very few of these quacks in uniform and the rubbish they peddle usually gets short shrift because some sensible soldier has the guts to get up and dissect the bilge. When such a quack appears he should be quickly identified and isolated; quarantine him

as far as possible from the sources of decision and action. The damage their kind can do is considerable—as can be attested by what they have done to some aspects of learning in our land—and should never happen to the U. S. Army.

IN these days of advanced weapons and automatic machines that can seek out targets, aim weapons and fire them with a minimum of human assistance, it is very easy to become lyrical about these wonders. But the people that have devised these machines—the scientists and the engineers—are do-it-yourself people themselves and they know very well that in the final analysis it is man that counts. All soldiers owe these scientists and engineers a great deal. But at the same time we should not become so bemused by the wonders they have performed that we are forgetful of the eternal verity that man himself is the most complicated system this world knows. That to lead him in battle is a task beyond the capabilities of the most advanced computing system we can envisage.

In this age of science let's never forget that this nation has been secure for 183 years from all enemies foreign and domestic because the U. S. Army has always understood that command is an art that harnesses science to its purposes, rather than being enslaved by it. In this June of 1958 that is worth remembering.

AFCEA 1958 CONVENTION



JUNE 4, 5, & 6
SHERATON PARK HOTEL
WASHINGTON, D. C.

★ EVENTS ★

PROFESSIONAL PAPERS
(10:00 to 12:00 hours daily)

mornings 9:45 to 11:45

1. Rocket communications—what it means to Armed Forces, industrial and mobile communications.
2. Practical applications of electronics in medicine.
3. Interference problems. Practical ways to improve the use of the spectrum.
4. Transistor applications (solid-state physics) in military electronics.
5. Computer control in Satellite measurements.
6. Computer use in stock control methods.
7. New uses of printed circuits.
8. Advances in facsimile for Armed Forces use.
9. Effects of radiation on electronic gear.
10. Any other subjects of timely importance.

WEDNESDAY

Keynote Luncheon, 12:30 p.m.
President's Meeting, 2:00 p.m.
Panel Discussion, 2:00 p.m.
Reception, 6:30 p.m.
Buffet supper, 7:45 p.m.

THURSDAY

Council and Directors' meeting, 9:00 a.m.
Tour with Luncheon—Andrews Air Force Base, 11:30 a.m.
Reception, 6:30 p.m.
Banquet, 7:45 p.m.

FRIDAY

Industrial Luncheon, 12:30 p.m.
Ladies' Activities, Luncheons & Banquet speaker, to be announced later.

SHOW HOURS:

Wed.-Thurs. 11a.m.-7p.m., Fri. 11a.m.-5p.m.



For information write:

SIGNAL

1624 EYE STREET, N.W.
WASHINGTON 6, D. C.



Making like Hal March, Sgt. Charles M. West puts a question to a soldier in the isolation chamber

256,000 Seconds

HANAU, GERMANY

The house lights dim. An expectant hush falls over the audience. The doleful music crescendos, then stops abruptly. The contestant in the isolation booth fidgets nervously. The announcer on stage slowly reads the question: "Recite in order the six parts of the Code of Conduct."

This is "256,000 Seconds" a training gimmick conceived by Sgt. John D. Pauley, Training NCO of the 33d Ordnance Recovery and Classification Company which uses it.

Aware that mandatory training doesn't always evoke the interest of a personal appearance by Jayne Mansfield, Sergeant Pauley decided to put some punch into the program. First, he began to write scripts for various military training subjects. He envisioned a program wherein every subject would be presented by actors. Then he developed "256,000 Seconds," which permits a soldier to select a specific subject, bone-up on it, and appear before the quizmaster. A contestant wins one second of time off from duty for his first right answer, two seconds for the next right answer, and so on until he reaches the dizzy heights of 256,000 seconds (71 hours, 6.6 minutes) after 19 correct replies.

Just as in "\$64,000 Question," there are plateaus at which a contestant can stop. The first such level occurs at 32,000 seconds (6.6 minutes less than 9 hours). Once a soldier reaches this plateau he may stop at any time and accept the "pass time" he has won. Furthermore, if he should miss at any point after this plateau, he is still entitled to his 32,000 seconds.

Does it work? Does it get the interest of the soldiers in the 33d? Captain Joseph T. Panepinto, company commander, Sgt. Pauley, and Sgt. Charles M. West, a former circus clown, writer, actor and now the M.C. of "256,000 Seconds," all say yes. "No one falls asleep," says Sgt. West. "They're too interested in whether their buddy is going to fall on his face or get a pass." Sgt. Pauley has other evidence: At the time of writing 38 field manuals had been checked out for study by men of the company.

The Training Section of the 8th Ordnance Battalion, to which the 33d is attached, wanted to know whether the spectator-soldiers learned anything from this kind of training. The answer is that they do. Just like every other quiz program audience they find themselves searching for the answers, competing with the man on stage.

Lt. Col. Harold E. Krull, Commanding Officer of the 8th Ordnance Battalion, thinks so much of the program that he has urged all companies of the battalion to adopt it.

"Step right up, soldier, and choose your category."



TOUCHDOWN...EVERY THIRTY SECONDS

The weather has closed in. You peer out the window and see nothing — perhaps not even the wingtip.

You are orbiting. "Stacked" over the airport. Waiting your turn to land.

"We will land in 12 minutes"

The Captain's reassuring words come over the intercom. "We will land in 12 minutes."

Now you are being brought down in easy stages—safely—over the Outer Marker Beacon... the Middle Marker... the Inner Marker... then *touchdown*... on the runway.

Every 30 seconds, somewhere in the free world, a plane is landed safely by "ILS," the Instrument Landing System developed by IT&T, and installed in every major airport here and abroad.

Air passengers relax—pilots too!

Air passengers everywhere know this feeling of security.

The pilot likes it too. Because he controls the landing at all times. Once he is on the glide-path he needs no

further instructions — nothing except the electronic information he sees before him on the instrument panel, and the meaningful "beeps" in his earphones.

Another "first" for IT&T

IT&T has long been a pioneer in radio aids to air navigation. IT&T laboratories developed the first radio compass. The first distance-measuring equipment. For the Navy and the Air Force they developed and perfected TACAN (Tactical Air Navigation), the system that gives military aircraft their pinpoint position in the air—at every instant of flight.

Last year the Civil Aeronautics Administration accepted VORTAC — an application of TACAN for all civil aircraft. The

CAA has awarded to IT&T the contract to build 132 VORTAC ground stations throughout the U.S. Thanks to VORTAC the nation's airways will soon be ready for the fastest jet transports.

The next time you are aloft in bad weather... remember IT&T and relax. Your skilled pilot will bring you to a smooth touchdown... with "ILS."



... the largest American-owned world-wide electronic and telecommunication enterprise, with 80 research and manufacturing units, 14 operating companies and 128,000 employees.

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION 67 Broad Street, New York 4, N. Y.

FARNSWORTH ELECTRONICS COMPANY · FEDERAL ELECTRIC CORPORATION · FEDERAL TELECOMMUNICATION LABORATORIES · FEDERAL TELEPHONE AND RADIO COMPANY · IT&T COMPONENTS DIVISION · IT&T INDUSTRIAL PRODUCTS DIVISION · INTELEX SYSTEMS, INC. · INTERNATIONAL STANDARD ELECTRIC CORPORATION · KELLOGG SWITCHBOARD AND SUPPLY COMPANY · ROYAL ELECTRIC CORPORATION · AMERICAN CABLE & RADIO CORPORATION · LABORATORIES AND MANUFACTURING PLANTS IN 20 FREE-WORLD COUNTRIES

THE ARMY'S MONTH



RICHARD S. MORSE

Army Scientific Panel

Meets. Mr. Richard S. Morse is the new Chairman of the Army Scientific Advisory Panel (ARMY, October 1957) replacing Dr. Frederick L. Hovde who is the president of Purdue University. Mr. Morse, who is President of National Research Corp., of Cambridge, Mass., which he founded in 1940, had been

Vice Chairman of the Panel. Secretary Brucker announced the appointment of Mr. Morse at a meeting of the 57-man advisory group at Fort Bragg.

During the three-day meeting ASAP discussed concepts and requirements of limited war and heard technical reports on such subjects as tropical medicine and the officers' education program. Demonstrations included the air drop of an

Secretary of the Army Brucker passes the color guard during a formal ceremony within the historic walls of the Quadrangle at Fort Sam Houston, Texas



SP3 Thomas D. Walsh, a helicopter crew chief, has been awarded the Soldier's Medal, the nation's highest peacetime award for valor. He rescued CWO William C. Chambliss from a wrecked and burning helicopter on a Norwegian peak last August. Chambliss' copter, Walsh's and one other H34 of the 11th Transportation Company, Seventh Army, were engaged in a special NATO mission, airlifting radio relay supplies to the summit of the 6,200 foot Gausta mountain for the Norwegian government. Chambliss' plane went out of control and tumbled down the steep mountainside, crashing on a small plateau and bursting into flames. As Walsh's copter hovered ten feet off the ground near the wreckage, Walsh leaped out, ran to Chambliss' H34 and extinguished enough of the fire so that he could crawl into the cockpit and drag the unconscious pilot clear of the still-burning wreck.

Honest John missile and launcher, an M-56 personnel carrier and a jump by a company of airborne infantry. A demonstration of armed helicopter tactics was put on by a unit from the Army Aviation School at Fort Rucker, Ala. "Sky diving" (see opposite page) was also demonstrated.

Ceremonies at Arlington. Plans were well advanced for the interment of the Unknown servicemen of World War II and the Korean War at Arlington on 30 May. The granite crypt of the Unknown of World War II is inscribed with the numerals "1941-1945" and the crypt of the Korean War Unknown bears the dates "1950-1953."

USAIS shifts departments. In a recent reorganization at the Infantry School, the Tactical and Staff departments were merged into a Com-

mand and Staff Department; a new department called the Special Subjects Department was organized to teach subjects not handled by the merged department (map reading, management, Congressional relations, theory of atomics and leadership); and the Ranger Department was delegated responsibility for squad and platoon tactics in addition to its responsibilities for the tactical training of the individual soldier, patrol action, and escape and evasion training. As reorganized, the Ranger Department is now generally responsible for most field-type training and instruction given in the Basic Infantry Officer Course.

Reaching for the stars. The Army is planning to send qualified officers to civilian colleges for graduate training in astrophysics. The course, planned for two years duration, would lead to a Master's degree, but anyone displaying particular aptitude could stay on for another year and earn a Doctorate. The course would include classes in optics and spectroscopy, thermodynamics, kinetic theory, modern physics, astronomy, and nuclear physics and mathematics, as well as astrophysics. Schools that may participate in the program are the University of Virginia, Harvard, Princeton, and California Institute of Technology.

"Best Qualified." In a move toward greater selectivity for officer promotion, the Army announced that after 1 July, it will use the "best qualified" method to select permanent and temporary majors.

The "best qualified" method has been used in the selection of colonels and above for some time and was extended to lieutenant colonels effective



Only recently officially recognized by the Army, "sky diving," the civilian sport of stabilized free fall is being studied for possible military application. In the above cut Capt. Louis Peterka starts a 5,000-foot free fall. Capt. Peterka and Capt. Robert D. Hill, both of the QM Research and Engineering Field Evaluation Agency, first made free falls at Fort Bragg, N. C. The QM agency is studying the technique and the equipment since it allows better chute control and more accurate landings.

Seventh Army Deputy Commander Maj. Gen. Gordon B. Rogers greets visiting West German Gen. Hans E. Speidel Commander of Allied Land Forces, Central Europe



1 January. This policy will apply to selection of all Regular Army and AUS captains (except Medical Corps, Dental Corps, Army Nurse Corps, and Army Medical Specialist Corps) on active duty when considered for promotion to major.

Under the "fully qualified" method of selection, all officers being considered for promotion who are competent professionally and morally and are capable of performing next higher grade duties, may be selected, under standards set by the Boards.

By contrast, in the "best qualified" method of selection, officers within the zone of consideration compete with each other for selection. Comparison among officers is required and the degree of competition depends on the ratio of the number selected to the number considered.

When the "best qualified" method is used for permanent promotion below colonel, the lowest selection rate that can be specified by the Secretary of the Army is 80 percent. In other words



SFC James Sills of the 3d Training Rgt., Fort Jackson, S. C., demonstrates the adjustment of the position of the target tank on a sight training device used with the M92D sight on a 106mm recoilless rifle

One of the 7th Army's workhorses, an M127 A-1 cargo trailer, undergoes some blacksmithing. The welder modifying the trailer axle is SFC William J. Wells, shop foreman of the 87th Ordnance Battalion



this offers a four-out-of-five chance for selection. There is no legal limitation on the selection rate for temporary promotion.

This modification is expected to assure that high quality officers with demonstrated capability are selected for promotion. In the Army's view promotion is based on potential to perform the duties of the higher grade; and *not* a reward for service.

Selection for promotion to captain, both temporary and permanent, will continue by the "fully qualified" method. Major field commanders have the authority to promote fully qualified second lieutenants to first lieutenant and warrant officers (W-1) to chief warrant officer (W-2) on the completion of 18 months of service. Selections to warrant officer grades above W-2 are made by the "best qualified" method.

Permanent Enlisted Promotions. Permanent enlisted promotions in the Regular Army are scheduled to go into effect 1 July.

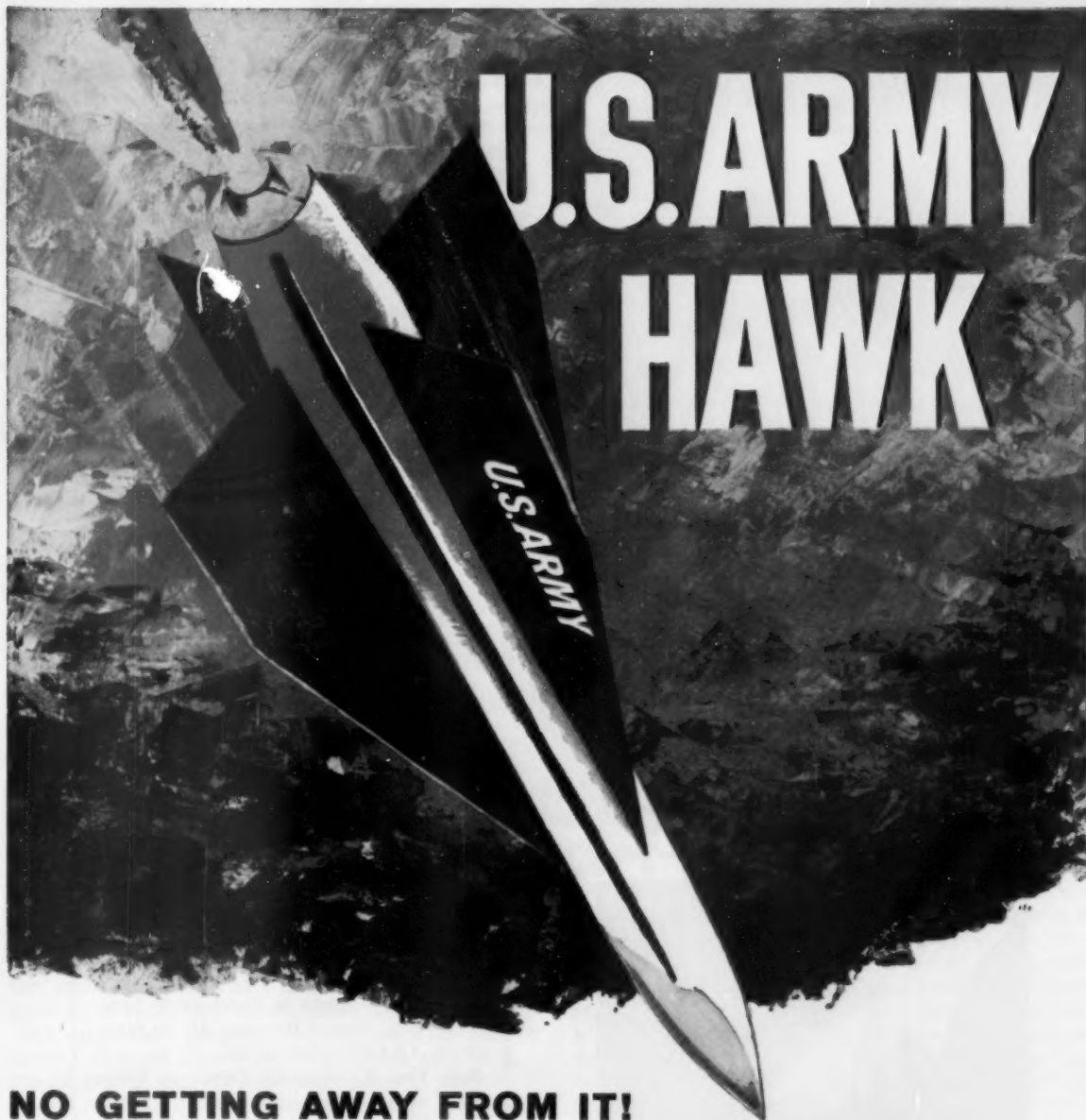
The plan is intended to give stability to non-commissioned officers and specialists and will provide added recognition for qualified professional soldiers.

Permanent promotions for Regular Army enlisted men, except for those who reenlisted in combat zones, were suspended in August 1950. Permanent promotion for those reenlisting in combat zones was suspended in July 1952. As a result, the temporary grades of most Regular Army enlisted personnel are now several grades higher than their permanent grades.

Regular Army enlisted persons may be considered for permanent appointment when they meet the following "experience" requirements, and are recommended by commanders:

For Appointment to	Minimum Active Federal Service Requirements	Minimum Time in Temporary Pay Grade
E-7	15 years	2 yrs in E-7
E-6	11 years	2 yrs in E-6 or higher
E-5	7 years	2 yrs in E-5 or higher
E-4	3 years	2 yrs in E-4 or higher
E-3	20 months	1 yr in E-3 or higher
E-2	4 months	

National Security Scholarships. Scholarships and fellowships totalling \$60,000 will be awarded at Ohio State University during 1958-59 for study and research in fields relating to national security policy. Ohio State's Defense Studies Committee, which is headed by Dr. (Col., USAR) Harold F. Harding, administers the program of grants established by a \$7.5 million bequest from an Ohio State alumnus, the late



NO GETTING AWAY FROM IT!

Here's the Army's answer to a major problem in U. S. defense. Hawk, recently-revealed missile, hunts and destroys invading aircraft *even at tree-top altitudes!*

Raytheon radars of unique design give Hawk its amazing low-level ability in the blind zone of conventional radars.

This aptly named 16-foot missile can be launched from fixed installations for the defense of U. S. cities. Highly mobile, Hawk can also travel with fast-moving land forces of the Army and Marine Corps, or be transported by helicopter or plane.

Raytheon, with more than a decade of pioneering in guided missiles, is prime contractor for the complete Hawk weapon system.



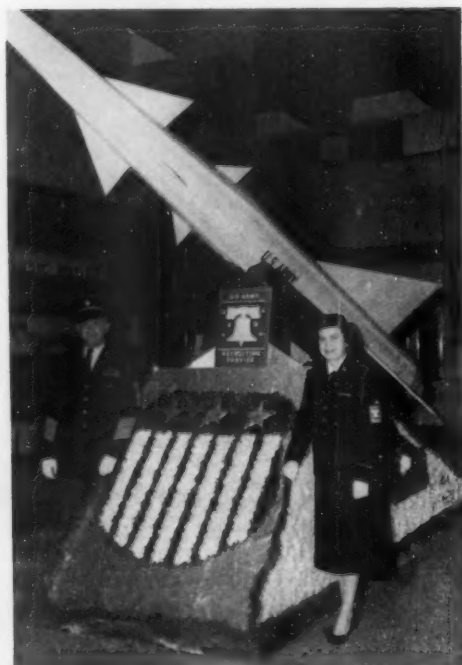
Excellence in Electronics

RAYTHEON MANUFACTURING COMPANY, WALTHAM, MASS.



Sgt. Ralph Van Slyke hangs on as a trainee drives an Army's "Mechanical Mule" up a steep grade at Fort Ord

Army recruiters have set up a recruiting exhibit featuring the Nike missile in the lobby of a San Francisco building. Standing by are MSgt Jack Wall and Sgt. Joanne Culver



Col. (Dr.) Ralph D. Mershon, electrical engineer and inventor, who was a life-long advocate of civilian military education.

The first year's awards will include twenty undergraduate scholarships at \$1,500 each, for juniors and seniors; five \$3,000 graduate fellowships; and two \$7,500 post-doctoral fellowships. It is expected that most applicants will be specialists in history, economics or political science, but qualified persons in medicine, law, geography, physics, chemistry, or any other areas bearing on national defense, will be acceptable also. Anyone desiring information on these grants should address the Director of University Scholarships for the scholarships, the Dean of the Graduate School for the fellowships.

Survival training. AR 350-225 (21 February 1958, supersedes DA Training Circular 621, 25 February 1955), directs the commanders of

GENERAL OFFICER SHIFTS

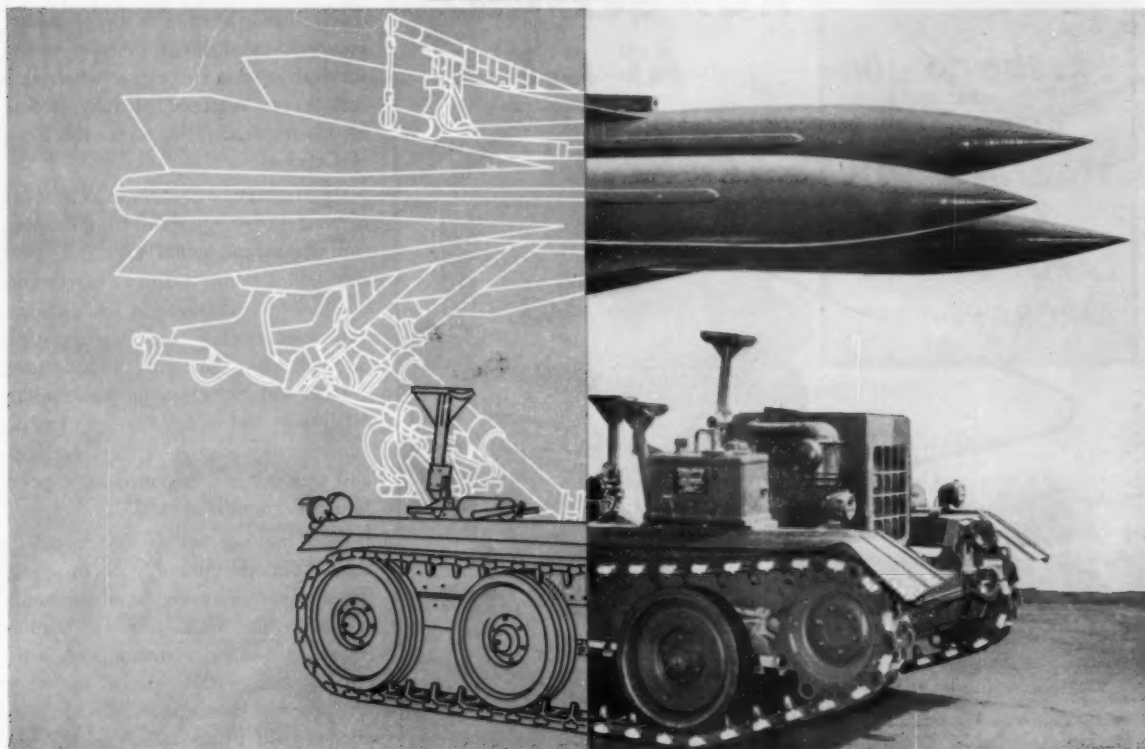
Gen. BRUCE C. CLARKE to CONARC . . .
Lt. Gen. CLYDE D. EDDLEMAN to Seventh U. S. Army . . . Lt. Gen. THOMAS L. HARROLD to National War College . . . Maj. Gen. FRANK S. BOWEN, JR. to Georgia Military District . . . Maj. Gen. LOUIS W. TRUMAN to 4th Infantry Division . . . Maj. Gen. JOHN S. UPHAM to 3d Infantry Division . . . Maj. Gen. MERCER C. WALTER to MAAG, Pakistan . . . Maj. Gen. ROBERT H. WIENECKE to 10th Infantry Division . . . Maj. Gen. WALTER B. YEAGER to Allied Forces, Southern Europe . . . Brig. Gen. JOSEPH E. BASTION, JR. to USAREUR . . . Brig. Gen. PHILIP H. BETHUNE to Military Attaché, Mexico . . . Brig. Gen. WILLIAM F. CASSIDY to Eighth U. S. Army . . . Brig. Gen. CHRISTIAN H. CLARKE, JR. to USATIC, Fort Jackson, S. C. . . . Brig. Gen. CHARLES G. DODGE to Office Chief of Army Legislative Liaison . . . Brig. Gen. JOHN H. DUDLEY to USA Engineer School . . . Brig. Gen. WILLIAM W. LAPSLEY to Ohio River Division Engineer . . . Brig. Gen. ROBERT G. MACDONNELL to South Pacific Division Engineer . . . Brig. Gen. RALPH R. MACE to USAREUR . . . Brig. Gen. FRANK W. MOORMAN to USA Electronic Proving Ground . . . Brig. Gen. RALPH T. NELSON to OCSigO . . . Brig. Gen. MILLER O. PERRY to 10th Infantry Division . . . Brig. Gen. BRUCE D. RINDLAUB to Engineer Maintenance Center, Columbus, Ohio . . . Brig. Gen. HERBERT L. SCOFIELD to OCSigO . . . Brig. Gen. C. COBURN SMITH to Military Attaché, France . . . Brig. Gen. ALBERT WATSON, II to USAREUR.

Retirements. Lt. Gen. THOMAS F. HICKEY . . . Maj. Gen. CARROLL H. DEITRICK.

...speaking of

Missile Ground Support

MOBILITY



WE TAKE IT FROM CONCEPT TO COMPLETION

Few firms, if any, in this country can offer you the complete capabilities and experience FMC can provide in the field of mobile military equipment. Over the past 17 years, FMC has designed and built more types of military-standardized tracked vehicles than any other company in America. This background of experience is currently being applied to missile ground support equipment projects. Starting at the design concept phase, on through develop-

ment, engineering and production, FMC provides a single source of coordinated responsibility. Also, important savings in time and costs can be effected by using FMC's fully integrated facilities devoted exclusively to defense production. And, contractors know that they can rely on FMC to meet contract delivery requirements — on schedule. For more information contact us, today. *Consult with FMC at the initial stage of project planning.*

Creative Engineers: Find stimulating challenge at FMC Ordnance Division

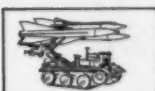
FMC'S PROFILE OF EXPERIENCE:



Multi-Purpose
Vehicles



Prime Movers



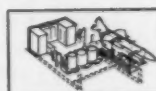
Transporter-
Loaders



Launcher-Erectors
& Power Units



Shipping & Storage
Containers



Propellant
Handling Systems



Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
Ordnance Division

Missile Equipment Section 4-B
1105 COLEMAN AVENUE, SAN JOSE, CALIF.

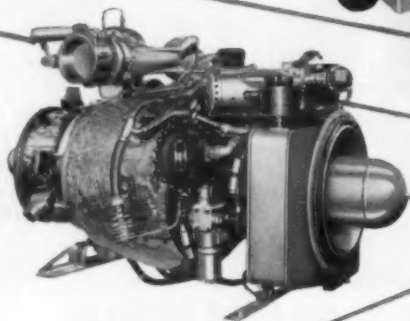
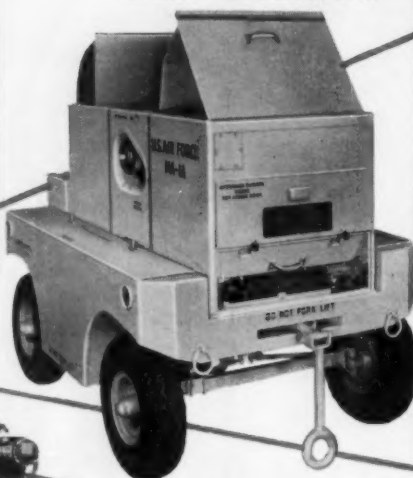
NOW IN VOLUME PRODUCTION

... the TC-106

(USAF TYPE MA-1A)

PORTABLE
STARTING UNIT
for
LARGE JET
AIRCRAFT

AT C.A.E.



MODEL 141
TURBO-COMPRESSOR
ENGINE

Typical of the fine results of Continental development is the TC-106 portable starting unit for large jet aircraft. This advanced new model, with a high performance turbine compressor as its heart, weighs one-third less than its predecessor, yet has 17 per cent higher output, and in addition, other important qualities: greater mobility, less noise, and a completely automatic control system. . . . It is now in volume production at the Continental Aviation and Engineering Toledo plant.

C.A.E. gas turbine models—the J69-T-9, the J69-T-2, and the J69-T-19A are being built for Cessna's T-37A twin jet trainer, Temco's TT-1 Navy jet trainer, the Beech jet Mentor trainer, and the Ryan Q-2A Fire Bee target drone.



CONTINENTAL AVIATION & ENGINEERING CORPORATION

12700 KERCHEVAL AVENUE, DETROIT 15, MICHIGAN

SUBSIDIARY OF CONTINENTAL MOTORS CORPORATION

continental and overseas commands, and agencies and staff agencies to insure that training conducted in their commands includes survival, evasion and escape instruction. The purpose of this training is to give every soldier an adequate education to assist him in survival, evasion and escape when such actions are required of him to fulfill his responsibilities under the Code of Conduct.

The training will include techniques of survival, living off the land, evading capture, escape when captured, field navigation, cross-country movement, resistance to interrogation and indoctrination, prisoner-of-war camp organization, escape engineering and devices, evasion and escape geography, conduct on evasion and escape lines, contacting and effecting passage of friendly lines, and conduct and responsibilities upon return to friendly control.

This training will be conducted in the continental United States on a progressive and recurring basis commencing with the basic combat training phase; in overseas commands on a recurring basis, with special emphasis on practical application of survival, evasion and escape techniques. Care will be taken that the realism of the training is kept within bounds and that participants are not subjected to physical torture or indignities.

Kermit Roosevelt lecturers. Lt. Gen. Charles E. Hart, CG, ARADCOM, was this year's Kermit Roosevelt Fund lecturer at the Imperial Defence College, London; British Staff College, Camberley; and the Royal Military Academy, Sandhurst. His exchange lecturer was Lt. Gen. Sir Gerald W. Lathbury of the British Army, who lectured in April at the U. S. Military Academy, the National War College, and the Army War College.

Mixed shots. Selected officers and noncommissioned officers from the Continental Army Command will attend courses at the Jungle Warfare Training Center in the Canal Zone during this year and next. ¶Residence training of 32 students in maintenance and repair of the new Lacrosse surface-to-surface missile has begun at Redstone Arsenal.

HUGHES BUILDS FIRST FUNCTIONAL TWO-PLACE HELICOPTER

The Hughes 269-A

...the first easily maintainable, reliable, high performance, low cost two-place helicopter. With new engineering from top to bottom, the 269-A is designed to add new mobility to Army observation, and liaison on the company level—and at practical cost.

Easily Maintainable

Necessity for maintenance has been reduced to a minimum. The three fully



Simplified blade design eliminates interior reinforcements.

articulated all metal main rotor blades are unusually simple and are interchangeable without tracking. The multiple belt-type clutch has long life, is fail-safe and easily removable. The horizontally mounted engine is separately removable without special equipment.

Low Cost

Production engineered to provide low cost, the Hughes Model 269-A for the first time makes available a helicopter with power plant, rotor system, and structure components specifically tailored for the two-place mission.

Excellent Performance

With its thoroughly proved 180 h.p. Lycoming O-360 engine, the 269-A can

fly at a speed of 90 m.p.h. and has a cruising range of 150 miles. It has a useful load of 660 pounds and an empty weight of 890 pounds. Control system loads are light and no boosters are needed. Over a hundred autorotational landings have been made with the prototype. Hovering out of ground effect at 1750 pounds gross weight was demonstrated.

269-A Helicopter

This new two-place helicopter (shown below) also features a three-bladed rotor, resulting in a smaller disc which facilitates landing, parking and concealment. For further information or complete technical details on the Hughes 269-A Helicopter write:



HUGHES TOOL COMPANY
AIRCRAFT DIVISION
CULVER CITY, CALIFORNIA



ENGINEERS qualified in the helicopter field are invited to send applications to
Director of Engineering, Hughes Tool Company,
Aircraft Division, Culver City, California

One Hundred and Eighty-three Years

COLONEL JAMES WARNER BELLAH

It is historically most logical that the army of any country be just a trifle older than the country itself, for force of arms has been the most unarguable way of establishing political entities in the past and, at recurring intervals, of maintaining them. At about 0520 on 19 April 1775 the Army of the United States was born in musketry fire on Lexington Green under a cold dawn mist. The United States itself did not become *de jure* until a year and seventy-six days later when fifty-six men of substance placed their names at the bottom of a piece of parchment, in Philadelphia.

The first field order to the army was: "Don't fire unless you are fired on; but if they want a war, let it begin here." Captain John Parker, who gave that first order, gave it to thirty-eight breakfastless men who faced a close-in enemy approach march of between six and eight hundred British Regulars. Odds of about twenty to one. There is a homeliness to that picture that is etched in modesty and determination. There is a stark reality in the casualty list of seven killed and nine wounded—just under fifty per cent—a furious individual intent to accept the cost as the grim result of necessary action. A sort of "Yes you will!" posture—which is the only inscription I have ever seen on any war memorial that ever meant anything to me.

For this reason the Armies of the United States—unlike any other armies in the world—have always seemed to me to be immediate family. A strong man and his stalwart sons, working the ancestral place—varying in strength of numbers with the generations. It has always seemed to me to be the living, dynamic United States itself, put to different work in different clothes at different times but indivisible from the blood stream of family at all times. Plowing, building, making, planting for long, quiet years on end—then suddenly turning to and putting out a threatening fire with a deep fundamental family hatred for the destruction that fire causes—and the loss of work time that fire-fighting entails.

Perhaps that homely family touch in its heritage is why the United States Army has never in its whole history been a prideful, overweening, fancy-pants outfit with a need to compensate for an inferiority complex. Perfectly willing to dress up on Sundays, it has always been a touch casual in its work clothes—with a pinch of informality in its procedure. Only one word in all of history has been less formal in response to the demand for surrender

Colonel James Warner Bellah, USAR-retired, first joined the U. S. Army in 1916 as a member of the 1st Provisional Training Regiment. In 1917 he enlisted in the Royal Air Force and served as a lieutenant-pilot until 1919. He was the first reserve officer to be called to active duty with the U. S. 1st Infantry Division in October 1940. During the Second World War he served overseas with the Southeast Asia Command and in Washington with Headquarters, Army Ground Forces. During the latter duty he was one of the officers responsible for establishing the Combat Infantryman Badge. For many years Colonel Bellah has written short stories for *The Saturday Evening Post* and other magazines and has also written for the movies. Many of his most popular stories have Army themes. He now lives in Santa Monica, California.

than the "Nuts!" of Bastogne—and you can't print that other word, except in the French it was uttered in, and even then not in France.

Because it is the heritage of the United States that only a comparatively few young men in each of its generations have ever heard the clarion call to professional soldiering (and God bless those who have and do!—for in their custody alone lives the vital progressive know-how through the dry-run years that makes expanding armies able to go for successful record) all American soldiers seem to have the same basic characteristics as you bring them to life again in the old accounts.

At any given time in any given place of combat, they seem nebulously somehow to be where they are because in some continuing way "Pop told me." In this respect the family blood stock has not changed very much in one hundred and eighty-three years. There may be an individual consciousness of something a little deeper than that—a shade more sacred, that does not put itself easily to words for if it did there would be a pomposity to them that could not be tolerated. Because it is a demonstrable fact, that when any country is assailed by exterior force, its geographical frontiers always re-draw themselves, for all practical purposes, until they become identical with the forward elements of its field armies and are placed in the temporary custody of lieutenants and platoon sergeants—men who at times feel that sacrosanct personal trust that is placed in them.

It is not my wish to bring interservice rivalry into this—but by air or sea whatever is done forward of the leading ground elements can facilitate, soften or ultimately paralyze enemy resistance—but it carries no permanent extension of sovereign power with it—any more than does artillery fire or an ICBM. The will of the people of the United States can only be expressed, administered and policed as far from Washington as the farthest foxhole has been dug and held. For the time that he is there—that combat rifleman in it is the farthest limit of the United States. There is a devoutness in this family mission that he would not speak of if he could. That is why the sight of a dead soldier on the field of battle brings a dreadful, hurting sense of personal loss. He is a member of the family who has died, and, with apologies to Rupert Brooke, where he lies will forever be a part of the United States, because he made it so—by being there.

There is a great and ultimate simplicity in all of these young men who have throughout eight generations carried the will of the people of the United States in their cartridge belts—and a great similarity in their uncomplicated attitudes. They read alike and with a re-tread of uniform I believe they would look somewhat alike.

There was Sergeant Joseph White who was among the first to cross the Delaware to take Trenton. Get him: "One night about 12 o'clock, I heard somebody inquiring after me [but] I lay still in hopes they would not find me." But White got a field piece away in the thick of the fight in spite of a broken axle and contrary orders from a group of men who "happened to be all the Generals" and having done so then liberated an elegant sword from a dead British field officer and sold it for eight dollars of personal gain. Put sweaty coveralls on Joe White and I believe he would not look, nor think, nor act unlike Sergeant Alex Drabik, who spearheaded the 9th Armored at the Ludendorff bridge at Remagen and thereby became the first soldier of any army to fight his way across the Rhine for record, since Napoleon's time. Joe White refused a commission a hundred and eighty-one years ago and went back to his printing press in Weymouth, Massachusetts. Alex Drabik—with his DSC racked up—is a butcher today in Toledo.

Twenty-six years after Joe White went home with his discharge papers in pocket, another Army of the United States met a formidable force of the Duke of Wellington's well-seasoned Peninsula veterans around Plattsburg, New York—and held Plattsburg. The same homely heritage was building still, for it was British observation in general at that time that "in

the American character antipathy to war ranked first among political traits. The majority of Americans regarded war in a peculiar light, in consequence of comparative security." Second Lieutenant Gleig of the British Army was most explicit, however, in his comments on the manner in which the American Army prosecuted the fight in the final battle at New Orleans. "Never was any failure more remarkable . . . than this. Our fire slackened every moment, that of the Americans became every moment more terrible, till at length, after not more than two hours and a half of firing, our batteries were all silenced . . . and we were completely foiled."

There is a reticence about tradition in the Army that has also been a part of its over-all character from the beginning. A sort of never mind the last battle, let's get the next one over with and get on home attitude. By the same token there is no broad encompassing army loyalty—but rather a fierce tribal unit loyalty within it, that interlocks in a sort of mass centrifugal force outward and upward. A soldier becomes "A 20th Infantryman, Sykes's Regulars" (the only regiment in the United States Army with an official name as well as a number) or he becomes "5th Field" (with probably no knowledge at all that Battery D of the 5th was at one time the entire United States Army and that at the Vincennes fight the 5th lost every commissioned officer killed and was brought out by its noncommissioned officers in perfect order, but very badly mauled. He becomes "Big Red One" which has been described in the 1st Infantry Division as not a loyalty, but a sacred religion. The broadest loyalty he has ever accepted since he was one of "Sherman's Bummers" was when he felt himself "Patton's Third Army."

The living loyalty for unit is the real tradition of the American soldier and that he does not require that it be formalized is a part of his continuing informality. It is of the essence of practical old-shoe approach, that a sergeant of Merrill's Marauders plodding the noisome, sweating jungle down to Wallabum Perimeter in Burma should have smothered the rising gripes of his section with "You joes think this is bad—you shoulda been on the Louisiana Maneuvers!" and it stems back in the same unbroken characteristic of mind to the Battle of Buena Vista in the Mexican War of 1846. General Santa Ana sent Major Liegenberg in to General Zack Taylor with a firm but courteous demand for his surrender within the hour. Taylor turned to his aide and said "Tell Santa Ana to go to hell, Major Bliss, and put it in Spanish and send it back by this damned Dutchman."

There was no greater flowering of the innate characteristics of the American soldier than in that time when he fought himself across the frontiers of the old ancestral place, the main fence-line of which shifted bloodily for four desperate years between the Potomac and Appomattox Court House. When the fight finally ran out, a great American army stood defeated but left a heritage of stamina and heart to the entire Country forevermore. There was no shoe leather left to the Army of Northern Virginia, no blankets, no food, no ammunition, no forage. It was hard pressed in rear and on both flanks and then a Union corps laid itself across the forward line of its march—and it stopped utterly exhausted, but it still stood upon its feet—and "There was a silence in Heaven for about the space of half an hour" to quote the Book of Revelations.

Lieutenant Colonel William Thomas Poague, who commanded the rear-guard artillery and had been in continual counter-battery and counter-infantry and cavalry action with it for seventy-two hours, only four of which he had slept, saw his defeated army with dreadful clarity in that half hour after the word spread that Lee would surrender—and its great strong heart beats still in Poague's words: "Men expressed in various ways the agonizing emotions that shook their souls and broke their hearts. Some cried like children. Others sat on the ground with faces buried in hands, quietly sobbing. Others embraced friends, their bodies trembling and shaking. Others, struck dumb and with blanched faces, seemed

to strain their eyes to catch the form of some awful horror that suddenly loomed before them."

The ghosts of the older armies march past us and the echo of the marching carries only faintly to the days of western empire far across the Mississippi. Here it was always a lieutenant's and a sergeant's war, with troops and half-troops carrying the guidon. In a young country with fortunes to be made at almost anything—between sunup and sundown—few youngsters wanted any part of the Army. So for a time it was an Army of Outside misfits who had found a home in it. Almost literally runaways, jailbirds, wife-beaters and drunks—with the dedicated soldier a very rare commodity. And yet somehow the same character, the same homeliness, the same simplicity and informality lived on.

The connecting link to the desperate, hopeless fight on Bataan lies along the banks of the Washita. With Major Elliott and Sergeant Major Kennedy and thirteen troopers of the 7th Cavalry lying dead and stripped and mutilated in the winter snows—but fighting to the final moment they were overrun—on Elliott's shout of "Here goes for a brevet—or a coffin!"

It comes back in pieces and fragments and there seems to be no particular pattern to it but it all has a family resemblance and it is all "Army." When history looks at San Juan Hill it sees the Senior Theodore Roosevelt as the dominating figure—but with the simplicity and informality of fact, the record puts a 16th Infantry sergeant on the Spanish parapet first—and I wish I could remember his name because he is the living connecting link with Corporal Enright and Privates Gresham and Hay out of Company F of the same regiment who were the first men killed—on the first patrol in the 1917 war—the same regiment that took Oran one war later when it carried the sovereign power of the United States onto the continent of Africa.

When Color Sergeant Gorham was hit at Tientsin in 1900 during the 9th Infantry assault on the city, Colonel Emerson H. Liscum snatched the colors himself and passed them to a man in Company H—and took his own death wound doing it. There was nothing but the job in his mind still—even though he knew he would not go home. His final order was "Keep up the fire!" not with the heroics that always seem to attend those immortal American sayings of the history books—but with the simple informal approach to practical ends that usually typifies the American soldier.

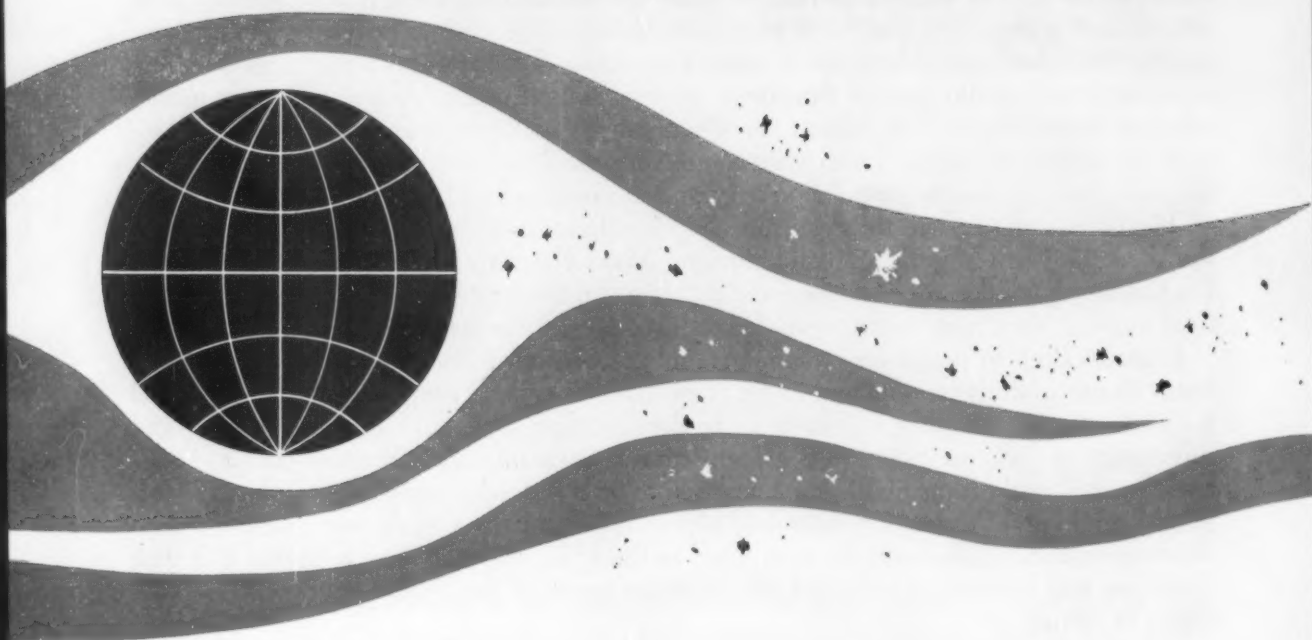
The same homely feeling is there again a half century later at the Inchon landings. With the tide favorability exceedingly marginal in time, a staff officer said "You know, sir—that for any degree of success this operation will have to go off like clockwork." And MacArthur said "Of course!"

So one hundred and eighty-three years have unrolled on the scroll of history and the story is written to date. It is the habit of mind of American youth today to resent the necessity just as bitterly as it was resented in the past—but, to date, the job has always been done, for subconsciously I believe that the Armies of the United States have always been an integral part of American inner prideful thinking.

You may see today's Army in its "rifleman" green and find it a complete stranger outwardly. But it is no stranger to itself for it wears the same color of uniform that the Royal American Regiment wore long, long ago—when it was the first regular regiment of native Americans ever to be organized on this continent. Nor are its weapons unfamiliar in their essence—for they stem directly back through transubstantiation—to the smoothbore over the home fireplace which has always been a part of the Law of the Land under the second amendment to the Constitution "A well-regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed."

"Pop told me—so yes you will!"

NATIONAL STRATEGY



BRIGADIER GENERAL WILLIAM B. BUNKER

A COUPLE of earth satellites projected into space forcefully demonstrated the Soviet's capability in the ballistic-missile field and spurred us to accelerate our own activity in the same field. Since obviously this weapon is suitable only for the concept of wars of obliteration, we began to expand our long-range efforts toward similar weapons and intensified interim efforts in manned vehicles capable of delivering thermonuclear Armageddon. Considerable impetus was added to the Senate Preparedness Committee's report to indicate the vital necessity for vast increases in thermonuclear airpower, and we immediately demonstrated the mobility and range of manned aircraft through speed records and long-distance flights. Our nation-wide reaction was aptly expressed by a news commentator: "Like the Romans with the word that the Visigoths have arrived at the gates."

Just at this time a couple of new books also attracted considerable attention. Their thoughtful civilian authors echoed the oft-repeated admonition of our military planners that the concept of wars of annihilation not only reaches the practical limitation of mutual suicide, but also bankrupts the essential

soundness of force-in-being as an aid in international diplomatic negotiation. Increasing numbers of thoughtful persons question the soundness of a super-powerful thermonuclear weapon which consumes our resources to the extent that we can afford no lesser form of deterrent force. The soundness of the theories (so widely supported by air enthusiasts from Douhet to Finletter) which advocate the use of other military force purely for launching devastating retaliation, becomes less and less credible in the minds of modern political thinkers. Even some editorial writers are willing to accept the proposition that perhaps one additional infantry division might offer us a greater increment of international political strength than five more super-bombers.

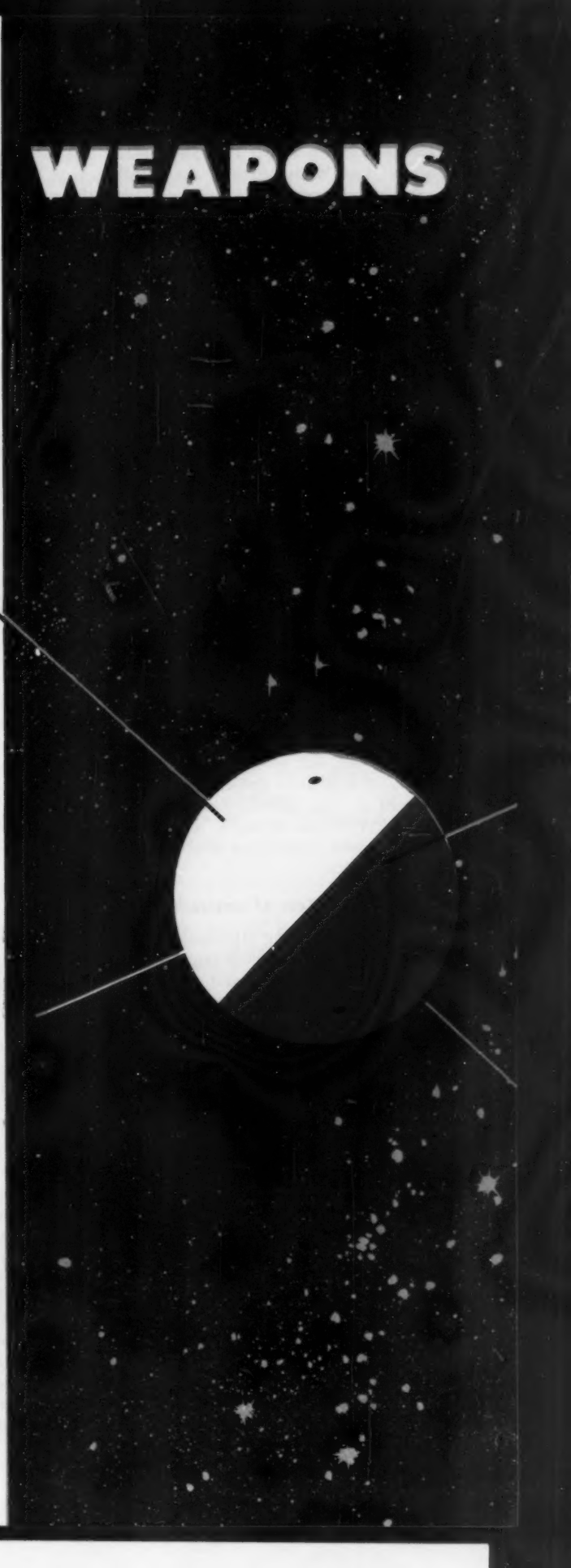
Also within the climate of current affairs, recent economic developments appear important. While the military departments made frantic readjustments to contain themselves within an unexpected arbitrary expenditure limitation, the economy itself started downward to a minor but nevertheless significant degree. Economists, who had greeted the budget for the fiscal year 1958 with anguished cries that continued Government expenditures would wreck

AND MODERN WEAPONS

our economy, now hypothecate the value of continued high-level defense spending as a leveling influence and as an offset to the loss of expansion resources for our industries. Those who enthusiastically trimmed the carefully considered fiscal requirements of the Government now decry the reluctance of its agencies to demand the funds which the current situation requires.

These factors all add to the confusion and difficulty of thoughtful planners who must determine what our military program and policies should and will be during the next few years. Has a belated recognition of the technical abilities of our major potential enemy now made more imperative the all-or-nothing concept of the thermonuclear war? Has the availability of the current model of the ultimate in weapons in the hands of the Communists made it vital that we develop with all haste a "super-ultimate" weapon while accumulating an increased arsenal of sub-ultimate, interim substitutes? Have we belatedly realized that by overconcentrating on a one-weapon arsenal we stymie our ability to negotiate at the international poker table? And therefore must increase our stakes in red and white

JUNE, 1958



chips as well as blue ones? Do we now realize that our international obligations require us to be ready to assist in ground defense and in ocean control, and that these require the reevaluation of our decreased ground and naval programs? Does reassessment of the contribution of Government to our economics require increasing the proportion of our gross national income which can, and should, be used for national purposes and a reevaluation of an appropriate military budget? Does the realization that the minimum sustaining requirements of our defense industries require increasing our investment in those commodities whose producers are essential for this long-term period of tension? These and many more questions are raised by the developments of the past few months, and all require thoughtful consideration by our civilian and military leaders.

The essential similarity of these factors is that none of the situations, nor their accompanying reactions, is clear and unequivocal. There are persons who say that satellites are but baubles in space, and if the Soviets waste money shooting off king-sized types, that is their affair; that certainly we must not waste ours on anything so foolish. In spite of the fact that two late evaluations of thermonuclear military philosophy were not made by ground soldiers or battleship admirals, some people feel that these books are merely an apology for an obsolete profession. Pinning their faith on statements like those of Churchill's and LeMay's, that the strategic bomber has kept and will keep the peace of the world, they charge that patronization and continued support of ground troops and warships are purely contributions to the panoply of national pride. Some economists feel that the original reception to the last budget was a correct one; that the current budget must be less, not more; that the policy of an absolute minimum in military defense spending must be ruthlessly adhered to; that subsidization of farmers, airlines, highways and schools is more important to our national economy than investments in the development of strong military forces.

Fear of empire-building

Throughout all the arguments that will arise out of these facts and their conflicting diagnoses, there will remain, however, one dominant pattern: the common cause which those who take either side in any of these arguments will make toward the so-called interservice rivalries and duplications in the armed forces. Constant reiteration makes it almost axiomatic that the major objective of the uniformed—and indeed the civilian—managers of our military departments is to wring from the taxpayer the largest possible share of the agreed-upon budget, be it large or small. A great many Americans are convinced that the pay, prestige and rank of their military servants clearly depend upon the number of troops, activities and funds these servants can bring under their control, and that therefore, the major efforts of these officers are bent on achieving that aim. While a majority is probably willing to accept the contention of the military, often expressed by experts of all services, that activity and basic research in rockets and missiles must be accelerated, there will be an accompanying reaction that any work in this direction by more than one service is empire-building and budget-grabbing. While there may be increasing realization that something more than an all-or-nothing arsenal is required to meet the problems of today's world, efforts to achieve part of

this capability by the three services will again be interpreted as part of a continuing battle for service survival. And, obviously, the request by any service for an increased share of the available national resources for its program will be considered another indication of parochial interest and pride. Even those who do not label military motivation as jealousy will often contend that the limits of military intelligence and imagination do not permit a mutual understanding of one service's philosophy by the others.

Yet, in spite of this confused panorama, most intelligent and thoughtful members of business and Government, and even of the press, regard the military and civilian officials in the Department of Defense as dedicated men. The public, by its acceptance of the major findings of the Cordiner Report, clearly recognized that if these leaders were really self-seeking, they would have deserted the thankless and poorly paid military profession long ago. It is generally accepted that the military leaders of the services are far better informed on current political affairs and national and international economics than their opposite numbers in commercial endeavors. Continual peacetime education at service and civilian schools and leisure-time study of historical and military literature are recognized hallmarks of the military professional. The questions therefore arise as to the real source of these intensely differing opinions, and why a conspicuous competition for greater shares of responsibility, resources and funds ensues whenever there is any change in the military program. And when these changes arise, why is the now trite explanation of interservice rivalry and jealousy invariably offered as the answer? Since it is obvious that the events of the past year will lead to an intensive reappraisal of our basic military philosophy and probably an aggravation of these significant differences of opinion, it is urgent that we evaluate the problem.

Why does the problem exist?

It is difficult to see why problems of military doctrine and weapons must so consistently plague us in spite of the sincere attention given to them by our leaders and by other thinkers in all sections of American life. There is a mass of literature on what our military policy and program are, or should be—too vast for even the most determined scholar to digest. Attention to things military is also evident by the position in Government of the National Security Council and the frequency and importance of its meetings compared to those of the Cabinet and other agencies concerned primarily with domestic affairs. Private agencies like the National Security Industrial Association, the National Executive Reserve Association, the Aircraft Industries Association, and others of the business world as well as the professional associations of the military services, hold large, well-attended and well-publicized meetings where broad strategic and military-economic affairs are discussed. In public interest and intensity, investigations of military affairs and programs by Congressional committees are second only to those involving scandalous wrongdoing by public and private persons. One might suppose that with all this scrutiny from within and without the military establishment, the development of a logical and compatible military program for our country would have been achieved long ago.

The problem becomes even more perplexing when, so far as we can see, ours is the only nation which faces such

a dilemma. While such a conflict may exist within the Soviet empire, certainly not even the mildest rumblings of it reach us through the mass of literature that investigates, analyzes and hypothesizes what goes on behind the Iron Curtain. Certainly the British seem to have made up their minds as to what shall be the roles and missions of their military forces and have accurately adjusted their programs and expenditures to meet their decision.

Service concept of mission

The fundamental source of the conflict among the services is, quite naturally, each one's conception of its basic mission and the contribution it expects to make if it becomes necessary to employ military strength in implementing the policies of our Government. Thus, the experienced airman firmly believes that our country's objectives will be best achieved, when conflicting international policies lead to a clash of arms, by exerting the maximum destructive effort as close as possible to the source of the enemy's strength. In a military concept, now become classic, this means that, ignoring the enemy's opposing land and sea forces, the infliction of maximum pressure on his home-front economy and political structure through indescribable destruction from the air will insure the immediate collapse of his will to resist. This concept is an old one. Whether or not it has been successful in the past, while debatable, is immaterial in the face of thermonuclear de-

ness, therefore, requires only a clear forecast of precisely what pattern the war will ultimately take and to procure that quantity of bombers, carriers, nuclear submarines, and Army divisions required to obtain a military solution. Of course, an important variable in this equation is introduced when we assume that optimization of one factor will minimize the others: maximum destruction from the air will require a minimum of land and sea support, while the effectiveness of powerful naval forces may decrease the need for land and air arsenals. This quite simple problem is again slightly complicated by our fundamental philosophy that, since we cannot launch a military operation in accordance with our own political desires and time table but must await the enemy's opening moves, our operations must be so adjusted as to be effective against any strategy he may elect. While from time to time we have indicated that we would counter any action by immediately using all our resources, there is at least now rather wide recognition of the fact that our military operations will be tailored to the pattern cut by the enemy and not exceed his degree of ferocity. This, then, is the problem we have set ourselves to solve by using not only philosophical argument, discussion and analysis and the study of history and governments, but even the modern cure-alls of electronic brains and the "theory of games." In our inability to find a simple, direct, "American" solution to this perplexing problem and its attendant effects on budgets, manpower and weapons, too



Brigadier General William B. Bunker, USA, an occasional contributor to this magazine, commands the Transportation Corps Matériel and Supply Command in St. Louis. During World War II he was Deputy to the Assistant Chief of Transportation and in 1948 was in charge of terminal operations in the Berlin Airlift. He is an Army Aviator and recognized as a realistic advocate of the military use of the helicopter. General Bunker is a former member of AUSA's Executive Council and Past President of the American Helicopter Society.

velopments of the past decade. Familiarity with past performance and logical extrapolation of modern technology build a strong conviction that any such conflict must indeed be short and decisive.

Until recently, the Navy's planning was based primarily on its conviction that freedom of the seas was vital, regardless of the form the conflict assumed; that, in advance of active hostilities, Mahan's concept of the fleet in being was still a demonstrable national asset; and lately, the theory that attacks launched against the enemy's heartland from mobile bases will be more successful than assaults from elaborate pre-established, fixed and vulnerable bases. Pointing to the formidable Soviet submarine fleet, our Navy planners insist that a large naval force is and will be vital for our protection.

On the other hand, Army leaders take the position, based also on recent experience, that destruction of itself is not likely to be conclusive; that a no-man's-land must be denied the enemy or must be occupied by ourselves if the true object of the conflict is to be appreciated. Most Army leaders would readily grant that if wholesale destruction brought an enemy immediately to his knees, ground forces would not be required for the battle, although they do foresee their need for policing conquered areas.

The ideal solution to our program of military prepared-

ness, therefore, requires only a clear forecast of precisely what pattern the war will ultimately take and to procure that quantity of bombers, carriers, nuclear submarines, and Army divisions required to obtain a military solution. Of course, an important variable in this equation is introduced when we assume that optimization of one factor will minimize the others: maximum destruction from the air will require a minimum of land and sea support, while the effectiveness of powerful naval forces may decrease the need for land and air arsenals. This quite simple problem is again slightly complicated by our fundamental philosophy that, since we cannot launch a military operation in accordance with our own political desires and time table but must await the enemy's opening moves, our operations must be so adjusted as to be effective against any strategy he may elect. While from time to time we have indicated that we would counter any action by immediately using all our resources, there is at least now rather wide recognition of the fact that our military operations will be tailored to the pattern cut by the enemy and not exceed his degree of ferocity. This, then, is the problem we have set ourselves to solve by using not only philosophical argument, discussion and analysis and the study of history and governments, but even the modern cure-alls of electronic brains and the "theory of games." In our inability to find a simple, direct, "American" solution to this perplexing problem and its attendant effects on budgets, manpower and weapons, too

many of us seem to have adopted the general attitude that the problems which have arisen are the result of the blindness, jealousies or ambitions of the military staffs who seek the answers. Within the limits we have established and the approaches we are using, the solution to this problem will probably not be the nice clear one we seek. We cannot forecast the precise pattern of war in advance; nor what tools we must have at hand to wage it. The compromises dictated by the incompatibilities of the available military solutions are of necessity completely inadequate for any particular solution to the problem and, hence, our military planners must feel a sense of frustration. When they realize from their broad knowledge and experience that civilian peacetime support of military requirements has never been adequate and that one of their primary peacetime missions is to keep our people alert to the Nation's shortcomings and dangers, they are placed in the thankless position of appearing continually to plead for their special interests.

Designing the ideal plan

The problem of designing the ideal military plan and its constituent weapons could be immeasurably simplified if we could devise clear-cut and precise objectives for meeting our national and international aims. While many

persons have developed theories for the future course of the nation in our continuing problem of survival in face of the growing strength of the Communist world, these plans have generally deteriorated to analyses of the same weapons effectiveness problems that professional military planners have faced themselves. Our philosophy of government places great stress on the provision that our military organization be subservient to, and under the intimate control of, civilian officials. During late years this philosophy has suffered an aberration to emphasize the necessity for stringent control of military financial and procurement practices rather than the development and direction of the desired national military strategy. Considerable emphasis is placed on detailed civilian review of military budgets and, indeed, on the selection of weapons and research projects; but ever decreasing attention is given the development of a military strategy compatible with national objectives. Based on their past military experience or their own special interests, government officials and even private citizens have emphasized and supported specific military programs of procurement and weapons development. On the other hand, the delineation of our national objectives in terms from which a practical military strategy could be developed, does not appear to be as conscientiously pursued. It has been reliably reported that the National Security Council has, in fact, determined that the theory of the short war of the future is probably the most accurate forecast, but even this decision does not appear to have been much more than an extension of the general theory that intercontinental thermonuclear bombing represents the ultimate in military force. It was recently reported that the NSC is re-examining the likelihood of limited war, but this too seems dictated more by weapons technology than by national aims or policies.

If our Government's objectives were clearly known in the detail to which those of the Soviet empire have been outlined in its dialectic and political publications, the development of an appropriate military organization and strategy to accomplish these objectives would not present so formidable a task. Where, however, these objectives are expressed merely in the broad terms of defeating Soviet despotism, preventing the spread of communism, or "making the world safe for democracy," differences of interpretation into a proper military organization are certain to arise. Stationing a major portion of our ground combat strength in Europe and continually exhorting our allies to establish adequate armies in this area indicate, for example, that we intend to resist, by the methods employed in the previous two European wars, any similar military activity by the Soviets launched from behind their Iron Curtain. Simultaneously, however, we have also indicated that any such action by our enemy would immediately lead to a wholesale thermonuclear assault against his homeland. This seems like telling a prowler that if he enters your house, you'll hit him on the head with a blackjack and at the same time blow him up with a grenade. Our reaction to an assault by a Soviet satellite nation against the periphery of our area of interest in Korea indicated that we will resist such attacks within the normally understood confines of limited warfare and the temptations of even minor extensions of operations such as a hot pursuit across arbitrary geographical limitations. Although in Vietnam we intimated quite strongly that our reaction to a similar provocation would undoubtedly be an all-out

atomic assault against the authors of our difficulties, actually our performance indicated no such determination. In the light of inconsistencies in our stated policies and in our actions, there is little question as to the source of the difficulty encountered by our military planners when advocating a proper military posture and the strength necessary for its support.

Determining a philosophy

The military have, as a consequence, been forced to determine for themselves what they consider the international political philosophy of our Government should be and, hence, its appropriate military posture. Quite naturally, experience, background and training lead them to favor the political philosophy and those ultimate governmental objectives most compatible with their profession as each of them best understands it. In the circumstances, the airman's predilection for cutting the Gordian knot by immediate assault against the enemy's heartland in reply to any provocation is certainly normal. As defined first by Douhet, there is little excuse for frittering away national strength in plodding ground battles when one quick, easy and inexpensive assault against the enemy's civilians in his rear areas could settle the whole affair in minutes.

When the admiral sees the effectiveness of a floating show of force in causing a minor power to pause before stirring up difficulties in the Middle East, his conviction of the value of a strong ready fleet is reaffirmed. The current concept of the fleet as a mobile base for thermonuclear war adds to the sailor's confidence in his primary contribution to the Nation's strength.

Certainly the ground soldier, still washing Korean mud from his boots, more than ever is convinced that most future conflicts, like those of the past, will be finally decided by him. Each service points to current and continuing clear proofs of the soundness of its contentions regarding the vital importance of its doctrine.

When certain conditions exist in certain areas, war could conceivably take the form of a suicidal thermonuclear exchange—and in that case other forms of military force are quite likely to be useless. In equally likely circumstances, war could again become a frustrating struggle in the mud, as in Korea, with little or no significant aerial activity. Naval blockades and convoys are also a possible form of modern warfare. The major significant difference among these three methods of force—and, indeed, in any combination of them—would appear to be the time required to achieve a decision. The strategic air concept anticipates a decision reached in hours; modern ground forces require months—even years—to achieve results; while a naval blockade by itself in this age would require many years to bring about collapse of any but the economically weakest nation. The degree of damage to the attacked nation also varies drastically from the extreme of a thermonuclear bulldozer to the subtle atrophy of economic blockade.

The suitability of each major weapons system available to us depends on the objectives of our international policy. If our objectives are major and vital, we could conceivably use the most dreadful weapon in our arsenal. If, on the other hand, an objective is relatively unimportant, we might understandably try to achieve it by strong diplomatic language and a visit by a major fleet. If the purpose of military force is to insure more than mere survival, and if

that purpose can be accomplished by other than wholesale slaughter even in the thermonuclear age, there are roles for other forms of military tactics.

Since as a nation we rely on planning and scheduling to answer our economic, technical and even welfare problems, we should, it would seem, be able to develop plans which would settle our military problems too. Ever since our first brush with the German General Staff system some forty years ago, we have had large and active staffs in our military services to do such planning. During the past ten years we have developed a number of special super-staffs in the executive branch of Government to advise and direct the military staffs. If we had a precise set of plans to match a precise set of international circumstances, it would be necessary only to pull the proper one from its pigeon-hole to meet those conditions. Each plan could be supported by a carefully tailored set of military assets which would assure its success. On the other hand, if our international objectives cannot be clearly forecast, and if our military objectives must meet a variety of alternatives, our strategies too will be confused and the military services enter into apparent conflict. During the twelve years of cold war we have discovered that our usual practice of ignoring force until the last moment and then exerting all of which we are capable, is now not so attractive. While our traditional isolationism is still reflected in our reliance on weapons suitable only for a showdown decision, our spoken policies recognize other responsibilities.

The genderless super-staff

So long as our international policies offer the prospect that we are concerned with commitments other than a final duel with our major potential enemy, and that our normal isolationism will not inhibit us from becoming interested in military adventures in areas not vital to our survival, our military strategy will offer ample evidence to our planners for continuing each service. And, since the peacetime military apportionment for each will never be enough to allow it to undertake all the preparations it would like, the specter of interservice rivalry will stalk the Bureau of the Budget.

Basically, the airman cares not one whit whether the Army has twenty divisions or fifty. He is, however, convinced that even *one* division is unnecessary and, therefore, a needless subsidy that contributes to national economic deficiency. The soldier quarrels with the sailor only on the day of the annual football game. Of course, he feels that the Navy's enthusiasm for carriers and bombers to devastate the enemy's heartland is ridiculous and serves only to divert critical funds which could finance another ten thousand tanks. Each service's leaders are constrained to express their disagreement with the others' military philosophy only where they feel it is a waste of critical resources. Since these programs are so largely mutually incompatible, in the popular interpretation they assume the appearance of bitter feuding.

Certainly the leaders of each service and their advisers are intelligent enough to understand the military philosophy of their brothers in arms. But since the military profession requires patriotic devotion of dedicated men, obviously these leaders are convinced that their particular form of force offers the most toward meeting the Nation's objectives. Could the U. S. maintain the strength of its Strategic Air Command, with crews on constant alert and

on long, wearisome flights, unless it instills in them a confidence that they will be needed at a moment's notice to fly into action? Could the fitness and spirit of this vital force be maintained if its leaders admitted it was likely a new war would find them checked and grounded by the balance of thermonuclear power? Our Army is primarily a weapon of manpower even in this day of spectacular weapons. Could the strength of our divisions in Europe be maintained if their leaders agreed that a six-hour war of annihilation was most likely, and that they were frittering away their lives on foreign soil only in case the more dominant force could not achieve a decision? Each service leader knows that the form of force and the military philosophy of the other services does, in fact, represent a possibility. He is a leader of his own service, however, because he believes not only that the weapon he controls is the most practical, but also that it best serves the interests of the Nation. To desire otherwise is to indicate that people should be given charge of programs and policies in which they have no real conviction. Since it is all but inconceivable that all these military philosophies could develop simultaneously, to seek an answer in a genderless military super-staff is to return to the one-war, one-weapon theory which has become so patently bankrupt no matter what weapon or war is chosen.

War is fluid and constantly changing, and mercifully its future course is hidden from our view. The pattern of war is determined by the interplay of mutually interdependent actions by combatants as well as by their weapons and vehicles. Interservice rivalry is the anvil on which our military doctrines can be forged and shaped to meet in advance as many of the unknowns as possible. And, since we cannot be certain of what we will be called upon to do, perforce we must spread our resources over areas where they may ultimately prove to be wasted—just as the defensive captain on the football field sacrifices line-holding strength to guard against the pass that never materializes.

Both civilians and the military should encourage free public discussion of the roles and missions of the services. While we can never achieve the pat solution we seek, we might obtain a truer balance. A democratic people should have a voice in determining the pattern of their military strength, but unless they are adequately guided by their military professionals, they might well be led to false faith. Had free discussion of these problems prevailed in France twenty-five years ago, rather than suppression of "service bickering," the fallacy of the Maginot mentality might well have been avoided. The problem is neither one of weapons nor appropriations nor manpower nor prestige. The problem lies in determining what types of military operations our country must use, and in what circumstances. When our needs are established, our military planners will have little difficulty in designing the appropriate, ready force and in determining the supporting long-range program to implement this policy efficiently and economically.

Events of the recent past will have serious repercussions in the fields of military philosophy and in the development of America's military power. Let us contend with reasonable interservice disagreement and encourage intelligent argument so that they may help us find the signs that lead to the roads ahead. Let the dedicated men constantly search for the best course that will assure the welfare and security of the nation they are sworn to defend.

The tongues of man are weapons that must be honed

Bridging the Linguistic

Colonel Walter E. Kraus

A RECENT issue of the Soviet Army's *Military Herald* carried an article by a Maj. Gen. I. Demchuk, which reflects a strategic trend in Soviet military thinking of which we should take more than passing notice. Contemporary development of military science, said the Soviet general, makes heavy demands upon the modern officer, and to satisfy these demands it is necessary not only to improve existing weapons and refine their usage, but also to follow the development of armaments among foreign armies.

The way to keep abreast of new weapons and techniques, Demchuk advised, is to step up language training programs for officers. "The knowledge of a foreign language," he wrote, "is especially important for officers stationed abroad."

Hammering at this concept, General Demchuk cited the obvious need for intensifying current programs of language study in order to qualify Soviet officers for this kind of research. Apparently the Soviets have conducted highly successful experiments in language training apart from the regular program at their military counterpart of our U. S. Army Language School.

At the Kiev Joint Military Academy of Self-propelled Artillery, for example, a day each week is reserved for everyday military foreign language expression.

Although somewhat obscured by the race to develop technical minds, the effort to produce an adequate body of linguistically-qualified military men is a vital issue, for on the outcome to a considerable extent depends our success or failure in the struggle for men's minds. We have lagged far behind the Russians in this area and the gap is widening at an alarming rate. As *New York Times* Moscow correspondent William Jorden wrote last year, probably no other nation is engaged so extensively in language teaching as the Soviet Union. It has already provided a large reservoir of persons able to speak and read one or more foreign languages, and the number is growing yearly.

When in Rome, speak as the Romans do

Special institutes for language study throughout the USSR have a single purpose: to produce teachers, interpreters and translators of foreign languages. The investment has paid enormous propaganda dividends to the Kremlin. Not long ago, in Jakarta, Indonesia, a Soviet transport plane landed with eighty passengers for the Russian embassy. To the last man, a janitor, the eighty spoke fluent Indonesian. Exceptional cordiality from Indonesian government officials, long accustomed to dealing with Western diplomats in English or



Colonel Walter E. Kraus, Artillery, Commandant of the U. S. Army Language School since September of 1954, is a 1929 graduate of West Point. He returned to the Academy in 1937 to teach Spanish, after a year of specialized study in Spain. Three years of supervising Army service schools in Europe preceded his present assignment.

Gap



Cold war demands a linguistic capability every bit as much as does a hot war, when a skilled interrogator able to speak the enemy's language is invaluable to the combat commander. This photo, made at the U. S. Army Language School, was posed by two students who are studying the Russian language

French, revealed the deep impression made by the Soviets' calculated gesture of goodwill.

A diplomat who recently returned from Libya offered further evidence of Soviet language preparedness in sensitive areas of the world. The Russians swept into that country with a mission of fifteen Arabic-speaking diplomats. By contrast, the American mission had one Arabic-speaking officer.

Undersized and overworked

The Army Language School at the Presidio of Monterey graduates some 2,000 officers and men from the school's twenty-eight language departments each year in preparation for assignments as military attachés, staff officers with military missions and advisory groups, and military intelligence specialists.

Yet this number is negligible in view of our global commitments. Today, forty per cent of our Army is stationed throughout seventy-three different foreign countries. America is allied with more than forty nations of the free world, and in addition, we are assisting in the training of some 200 allied divisions and have relatively large troop units of our own standing constant guard in Europe and Asia.

It is impossible to consider missions or advisory groups to be adequately staffed unless all key members can speak the language of the country in which the organization is located. To ignore the necessity of such training is to be guilty of linguistic complacency.

Economy too, is an important factor. If we send bil-

lions of dollars in equipment to allied countries, it is essential that we also send persons who can explain the maintenance, operation and tactical employment of that equipment. Appalling waste can result from poor communication. The average cost of a tank is \$250,000, a vast sum to post on the debit side of the ledger under any circumstance, but particularly so if the vehicle is lost through inefficient maintenance or misuse due to the lack of a language-trained instructor. The relatively small cost of training a linguist at the Army Language School is money wisely spent, since it contributes toward optimum efficiency in allied operations.

Language and the struggle for men's minds

Every day thousands of American officers and men are brought into cross-cultural situations with people around the globe and are, whether they realize it or not, our principal weapons in the struggle for the minds of men. This struggle is one we must win—and to win we must improve understanding among people everywhere. This means more than propaganda. It means personal contact and liaison with people of many foreign countries, whether our Army units are engaged in helping to build a road or are training a division or an entire defense system. It is impossible to overemphasize the importance of this liaison, for people judge our country and its way of life by the Americans they meet. The ability to communicate with others in the media of their languages and cultures will help us

make rapid progress in waging the "peace offensive."

Last year, General Maxwell D. Taylor, himself a skilled linguist who has long been interested in a multi-lingual Army, authorized a phased program aimed at giving all career officers foreign language training. Under this plan a maximum of 300 officers will study at the Army Language School each year, with emphasis in six language areas: Chinese-Mandarin, French, German, Japanese, Russian and Spanish. The students are to be volunteers from among the Army's career officers, regular or reserve, and are accepted on the condition that they maintain their own language skill through independent study after graduation.

Unlike the 2,000 officers and men now studying at the school, the officers admitted under the new program will not be taught a language in preparation for a specific overseas assignment. Instead, the goal of the new curriculum is to develop an officer corps rich in multi-language skills comparable to the language abilities which have characterized European armies for years.

A good bet, but no takers

Considering the thousands of requests received from private citizens who mistakenly believe admission to the Army Language School is open to civilians, one might think the 300 openings would be eagerly sought after. Conversely, applications of career officers under the program are disappointingly scarce. Presumably, too few officers realize that with the Army fast becoming streamlined for greater flexibility, they will have to accept more and more responsibility outside their special fields. Skill in speaking a foreign language will certainly be an intellectual sidearm indispensable to the officer of tomorrow.

Can you read Russian?

"Tomorrow" is the wrong word. The need is actually critical *today*. Even scientists working in highly specialized fields are confronted with a massive language barrier and sorely feel their inability to read foreign technical publications. It is a one-way barrier, however. Soviet scientists and officers do not face the same obstacles in tracking United States scientific and military progress, for by the thousands they have learned or are learning English.

Also, the Soviet Army can select linguistically trained people from among the ten million students who study English. The U. S. Army, on the other hand, has no civilian source from which to draw officers and scientists with language skills because the American school system is not producing graduates versed in foreign languages. The meager training given today's language students is hopelessly inadequate. A year of four-hour-a-week study of a language no more qualifies a man as a linguist than a single such year of physics would prepare him for work as a nuclear scientist. Every Russian high-school graduate has had five years of a foreign language whereas only one out of five U. S. students take any foreign language training at all.

The American school system has paid scant attention to the need for Russian studies. Only six high schools in the entire country offer any kind of Russian language course. A mere seven private schools have added Russian since 1950. At higher levels of learning the facts are just as distressing. Of America's 1,800 colleges and universities, only 165 teach Russian to a total of only 4,000 students.

Everybody is ahead of us

Thus the Army has had to take the initiative in providing a crash program in language training attempting just to keep in sight an adversary rapidly outdistancing us. But it isn't only the Russians who are disappearing over the horizon. The French, Germans and English all outpace us in foreign language studies.

The Spanish too, recognize the value of the linguist soldier. Recent action on the part of Spanish Army authorities clearly demonstrated this recognition: they announced a fifteen per cent pay increase for all officers and noncommissioned officers who could speak English, Russian, Japanese or German; a ten per cent increase for Arabic, and a five per cent raise for French or Portuguese.

Although a leader among world military language institutes, the Army Language School nevertheless cannot by itself make up the ground lost through decades of indifference to language training in this country. Despite the concentrated activity at the school today, there is a rapid turnover in the Army of graduates of the stepped-up program. The majority of students trained at the school eventually leave the service and their hard-won abilities rust in disuse.

Quicksilver talents

Language skill can be lost as quickly as it is acquired and must be kept in constant use to be preserved. Keeping alive the talents of a reserve of skilled linguists can be accomplished only by an adequate correspondence program for both those on active duty and those in reserve status. This training could be handled by an extension division—yet the Army Language School is the only service school without an extension service. Until correspondence courses are authorized we must rely on individual responsibility on the part of those who are taught, to keep their talent alive.

In addition, off-duty language programs for troops having no backgrounds in foreign languages ought to be personally endorsed by local commanders. Their initiative and leadership can do much to make linguistic self-improvement a reality.

The lesson in preparedness learned from Sputnik applies to languages, too. A recent Soviet text for English states Red Army aims for all to see: "A Soviet officer must be stronger in technique than his enemy. He must know especially mathematics, physics and foreign languages."

Here is a clearly stated challenge. It is up to us to meet it.

• A direct support mission • Eight-gun batteries



MOVE THE ARTILLERY CLOSER TO THE INFANTRY

MAJOR DAVID E. OTT

WE are losing our familiar Sunday punch—direct-fire support. Even though nuclear warheads give us fire support far more powerful than ever before, there are critical limitations on their use as substitutes for effective conventional fire support. One limitation is the possibility of a non-nuclear war. There are also technical limitations, including the problems of the safety of our own troops, the rate of fire of delivering units, contamination and fallout, and nuclear availability. Close support simply won't be feasible.

There are no field artillery battalions in the Pentomic airborne division, where conventional fire support is provided by five batteries of five 105 howitzers each. That's it. Yes, the manuals do mention attached artillery for many of the division's missions. Attached artillery can vastly increase fire support, but it is doubtful if the organic artillery by itself is adequate to provide the minimum essential support. It is also questionable whether the current structure can truly exploit the firepower of attached artillery. The commander of a Pentomic airborne division cannot strongly influence the battle with fire from his organic, conventional pieces.

The modern infantry-artillery team concept was developed in the fires of three wars. In World War I we teamed a field artillery regiment with a certain infantry brigade. In World War II we progressed to a direct-support battalion working with each infantry regiment. The same structure served in Korea, but was improved by adding forward observers and liaison officers, and by increasing the

number of pieces by fifty per cent.

Since Korea we have taken another big step. The infantry battle group has its own organic artillery, with the heavy-mortar battery functioning like the old direct-support battalion. Certainly this seems to have brought these two combat arms into even closer association. The infantry companies and the artillery battery are under the same commander. That appears ideal. Or is it?

Infantry and artillery are far apart

A closer look reveals that we have moved the infantry and artillery farther apart! True, the mortar battery is close to the infantry, but the *rest* of the artillery stands out in left field. Missions are fired when requested by the mortar battery, but the ability to develop intelligence at divarty level and to mass fires is gone. Divarty has contact with the infantry through its five howitzer batteries, but look at that contact. Each battery has a liaison officer (lieutenant) at the heavy mortar battery's fire direction center (and don't forget that the heavy-mortar battery often splits, and operates two FDCs). The heavy-mortar battery has a liaison officer (lieutenant) at battle group headquarters and a forward observer with each company. Here the heavy-mortar battery has a problem, because the professional advice of a lieutenant liaison officer is seldom sought by a colonel's headquarters. (Direct-support battalions had captain liaison officers at infantry battalions, which resulted in an excellent relationship among qualified men in key jobs.)

This line-up leaves divarty with a tenuous strand of contact with the infantry. The how batteries are usually employed in a reinforcing role which does not *require* them to be fully up to date on the infantry's situation. While in a reinforcing role, the howitzer battery displaces on order of the mortar-battery commander. During Exercise ALL-AMERICAN a 105 howitzer battery twice was left to shoot it out point-blank with Aggressor tanks because it couldn't

Major David E. Ott, Artillery, was a forward observer and battery exec in World War II, and S3 and exec of a direct-support artillery battalion in Korea. He has taught gunnery at Fort Sill and is now S3, 82d Airborne Divarty. Major Ott wrote "Battery Fire-Direction Centers," in *The Field Artillery Journal*, January-February 1950.

keep up with the situation. The mortar battery it reinforced either couldn't keep up itself, or else failed to discharge its responsibility of displacing the howitzer battery.

When a howitzer battery can't keep posted during its reinforcing role, divarty will surely be poorly informed. In such circumstances, how can divarty provide effective fire support by attached artillery or general-support batteries?

The airborne division's artillery has neither countermortar radar nor photo interpreter team. Forward observers with infantry companies are organic to battle groups, and there are no sound means for locating enemy mortars in the division. The principal sources of target intelligence are not controlled by divarty. Bearing in mind that effective employment of attached artillery and general-support artillery is based on attacking profitable targets, we can see that divarty can no longer employ attached artillery to best advantage since it has not sufficient means for locating targets.

To solve these problems and to restore the Sunday punch at a minimum acceptable level, two separate steps are required: (1) a direct-support mission for divarty units, and (2) an increase in the number of pieces. Let's examine them separately.

Direct support works

Direct support is a mission that works! The direct-support artillery commander's principal aim in life is to support his infantry associates. He is aided and supervised by senior artillerymen in the echelons above him. He commingles his intelligence and operations with those of the supported force. He knows what they are doing, because he is *able* to know what they are doing. He keeps divarty informed, and when he fails to do that divarty is in a position to correct his failure.

Here's how we can institute direct support in the Pentomic airborne division—and presumably in the infantry division as well. Charge each 105 howitzer battery with the direct support of a battle group. Have the battery send its liaison officer to *battle group* headquarters instead of to the heavy-mortar battery. Forward observers for each rifle company can come from the howitzer battery. Now the howitzer battery can render effective fire support. Target intelligence can be developed and operations closely followed. In turn, divarty can be brought closer into the picture, for the howitzer batteries are a *part* of divarty, being trained under its control. Their forward observers and liaison officers are gunners from divarty who cement the relationships that have been proved in battle.

Under such an organization the howitzer battery commander becomes the fire-support coordinator for the battle group. One disadvantage is at once obvious: the problem of coordinating the fires of the heavy-mortar battery. Generally, these batteries can be used like one used the old infantry heavy-mortar companies. Their fires can be coordinated by the howitzer battery or by an LO from the mortar battery at battle group headquarters. Their artillery designation and artillery-type radios facilitate the close coordination of their fires with other artillery fires and presumably improve their firing techniques. The HM battery is directly under the battle group CO, who is therefore free to use it as he desires. In ALL-AMERICAN one mortar battery was ordered to fight as infantry several days after the airhead had been seized. This was—and it should remain—the battle group commander's decision, but it would no longer

disrupt the fire-support channel. The HM battery should retain its ability to split so that it can support task forces or cover a wide front. The range of the 105 howitzer simplifies this support problem, and split positions would not be required. Thus, fire-support control remains centralized at the howitzer battery's FDC, which would not be split.

The mortar battery commander carries an unduly heavy load. He is the senior artilleryman in his unit, with no artilleryman above him to help or correct him. He must train a large battery with little outside assistance. (In the 82d Airborne, divarty runs periodic classes in fire direction, survey, and forward observation, for both 105 howitzer and heavy-mortar batteries. This still leaves much for the mortar commander to do.) He is the battle group's fire-support coordinator and is responsible for the use of reinforcing fires, requests for additional fire support, and commanding his battery.

With the howitzer battery in direct support, some of these chores could be lifted from the mortar battery. Since the howitzer battery is part of divarty, and since normally it locates farther back than the mortars, it can more readily shoulder the fire-support coordination job.

Increase the number of pieces

The second step toward improving the airborne division's fire support calls for increasing the number of its pieces. A revision of the airborne TOE now being staffed increases the howitzer battery from five to six tubes, thus raising divarty from 25 to 30. But we must bear in mind the division's requirements for light artillery. The old airborne division had 27 rifle companies; now it has 25 (the infantry division has 20). They are somewhat larger, so that the division can man a frontage at least as wide as heretofore. We now provide for this frontage about half the number of light howitzers we had before (54). Many typical targets normally attacked before by light artillery are not profitable for nuclear weapons. Targets like mortars, machine guns, and infantry in small concentrations are best neutralized by light artillery. Furthermore, as I have pointed out, the battle may not involve nuclear weapons.

It is difficult to follow the logic behind the cut in light artillery. Certainly there is a strong case for at least a moderate increase, to perhaps 40 howitzers. We can achieve this number by having eight-piece batteries, each of two four-piece platoons. Such a proposal is in FM 6-21, which deals with the Pentomic infantry division's artillery.

With batteries thus enlarged, and given a mission of direct support of a battle group, other simple changes might follow. The liaison officer could be a captain, so that his presence would again be felt and used at battle group headquarters. The battery FDO also could be a captain, to provide the necessary experience, skill, and judgment at that critical post, the direct-support FDC. The FDO could also be the battery's exec and operations officer. The BC should be given more rank to provide for a sound command structure.

The airborne division's artillery, organized and employed as suggested, would provide far better artillery fire support and more effectively employ the fires of additional weapons, whether attached or reinforcing its organic artillery. Either change would be an improvement, but the key to it all is the splendid mission of direct support. Let's restore our Sunday punch.

'Do Ye Even So to Them'

SERGEANT HENRY P. WALKER

THE Army is losing the quality of faith in one's fellow man, a fundamental attitude that has always been considered an absolute essential to an organization dealing, as does the Army, completely and utterly with men's lives, and deaths.

We are losing responsible young officers, and we try to tell ourselves that it is because of a lack of material rewards. We busy ourselves formulating new pay plans designed better to reward superior ability, and ignore our failure to give the young officers the all-important non-material rewards of trust and responsibility. Superior ability isn't worth anything to the Army or to its possessor if its possessor isn't allowed to put it to full use.

One can't but wonder how much effect disappointment has had in leading young Regulars to resign. For four years West Point cadets are trained and indoctrinated in the importance of the jobs they have waiting for them and then what do they find? Complete, detailed, binding instructions covering every phase of their activities (200 per month received at one regimental headquarters). Only too often when a new officer is detailed as an instructor he is handed prepared lesson plans. The letter of transmittal usually says "Attached lesson plans *may* be used as a *guide*." But many commanders won't allow their subordinates to use the permissive clause and apply their own imagination, initiative, and knowledge of the state of training of the troops.

GENERAL Taylor showed concern that an officer's word is no longer his bond and directed the elimination of certificates every time an officer turns around. There was the well known certificate of clearance, on which a PFC, supply clerk or SSO librarian could, by his initials indicate that an officer's records are all in order but on which the officer himself had to accomplish a very comprehensive certificate. Or the requirement placed on a group S-4 to certify to the accuracy of the equipment status report of a battalion stationed 100 miles away. Or the commander who completely by-passes the chain of command by dealing directly with company or battery commanders or NCO chiefs of section. Or the typical letter which says "Do it, and report in writing when you have done it." These are certainly expressions of lack of faith in one's subordinates and the concomitant desire to protect oneself in writing.

How could a regiment operate in combat if the commander had no faith in the report of the sergeant on a reconnaissance patrol? Would you have a battalion commander personally control every patrol?

It has been reiterated in this magazine that though the company or battery commander is held responsible for the state of training of his unit he is given little time in which to train. As late as 1943, as battery commander, I could count on an average of thirty-six hours out of a forty-four-hour week to schedule training as I

Sergeant Henry P. Walker was commissioned in the ORC from Harvard University in 1933. He received his Master's degree in 1935 and went on active duty in 1940. He has served as staff officer and commander of artillery units in Italy, Korea and Germany. He is now a student at the U. S. Army Air Defense School.

thought necessary. I had a mission: to develop an effective unit that could put the right amount of steel on the designated point in a minimum of time. If I felt that an hour of Yoga exercises per day was needed that was up to me. The final proof came in service practice: if the shells lit where they were supposed to, I was in; if they didn't I was a fool, or worse.

ICAN'T agree with Colonel Eben F. Swift's recommendation that planning and scheduling start at the top (approximately army level) and work down, each level taking its slice and leaving the company commander alone with what is left. There wouldn't be anything left! If we are going to have our companies commanded by captains and want to express our faith in their ability to produce an effective unit it will probably require a directive from the highest level allocating training time to each level.

A long time ago the responsibility for promoting and reducing enlisted men was taken out of the hands of the company commander. Very, very gradually some of this has been restored—if the local promotion board agrees with the commanding officer. Many commanders send a list of eligibles to the board and let it make the choice for them. Now D/A is preparing proficiency tests for all MOS positions. Is this a prelude to requiring a grade of seventy per cent or eighty per cent before a man can be promoted or must the top of the list get the stripe? It is well known that the best "ramrod" may not have the best "book larnin," and formal education often has little to do with the ability to march a tired squad one more mile or get a mired field piece manhandled to the prime-mover.

THE endless certificates and the removal of authority and responsibility from the company level are mute evidences of an all-pervading distrust. Are all members of the United States Army basically liars, dodgers, and connivers unworthy of the trust placed in them by their commanders?

It must be admitted that all men are not perfect, or they would be angels, not men; but one evening when a small group of officers was discussing the philosophy of leadership, one officer expressed the basic philosophy that all men should be trusted until they show themselves unworthy of that trust. For his ideas, or ideals, he was called a fool by a high-ranking officer. If he is a fool then so are the officers who, in the late 1930s, first broke him to the saddle.

"Therefore all things whatsoever ye would that men should do to you, do ye even so to them. . . ." Matthew 7:12.

Radar Target Simulator for Nike Batteries

NEW TRAINING AID FOR RADAR OPERATORS

Captain Robert L. Hogan

THE Nike family of surface-to-air missiles is the most powerful air defense weapon in the United States Army today. The Nike missiles are guided to their deadly meeting with an enemy target by an accurate electronic guidance system. Keeping this complex mechanism at peak performance is one of the most important jobs in the Army. Even more important is the time consuming task of training human reactions and intelligence for intricate duties on this involved equipment. An important part of this training is the development in radar operators of the difficult skill of detecting, acquiring and tracking elusive pips which appear sometimes as barely discernible traces on the face of a radar scope. Unfortunately, due to economic and air safety reasons, we have had to rely on infrequent and relatively unrealistic tracking missions to train our missile crews. Few, if any, of these flights approximate the conditions we must expect if the enemy sends high-performance aircraft into the initial attack. To assume that he will do otherwise would be sheer suicide.

An equally urgent need in training is to provide the SAM unit commander with as realistic experience as possible so as to develop and sharpen his ability to quickly evaluate the target, make his decision and engage the target with his missile, all within the ever-decreasing time-space factor of modern air attack and defense.

A solution to both of these problems has been found. A new training tool, soon to be operational, will provide realistic training to all SAM operating and command personnel while they are in tactical position. It is a mobile, electronic device called the Radar Target Simulator 15-D-2.

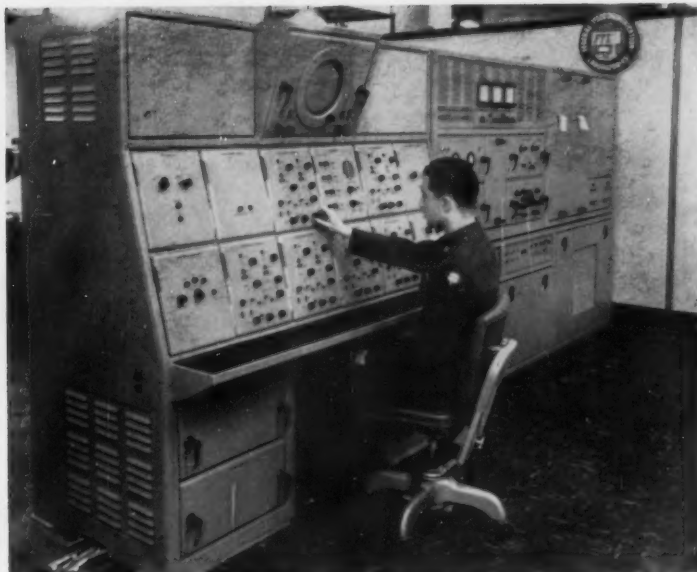
PRESENTLY it is planned to issue one of these simulators to each Nike battalion. Using the normal monthly battalion training schedule, each missile battery should receive at least one week of training on the simulator each month. In this one week, a battery will get as much operator training as is received during six months' training at present.

The simulator will connect into a single Nike fire con-

Captain Robert L. Hogan, Infantry, served as an enlisted man with Combat Engineer and Antiaircraft units in the Pacific area during World War II. Commissioned in 1947, he is now a radar electronics instructor at the Air Defense School.



Trained operators find maintenance and adjustment of the new radar target simulator relatively simple.



The console of the radar target simulator. It will be housed in a van so that it can be towed from Nike site to Nike site.

trol system so as not to impair its tactical function of detecting, acquiring and tracking any live target within its area of surveillance. Concurrently, it can feed into the system simulated targets which will appear to the operators as realistic target echoes or blips.

As many as six individual targets can be made to appear on the acquisition scope anywhere in range or azimuth. Simulated rates are applied to each of these targets so they will appear to have incoming, outgoing, crossing, diving or climbing courses. Velocity rates can be applied which exceed the speed of performance of all of today's operational aircraft.

To provide realistic command training the 15-D-2 is capable of simulating a complete Nike missile path. When the battery commander presses his FIRE switch, the device will simulate the launching of a missile and its movement through the conventional Nike trajectory. At the end of this simulated flight, the missile will seem to burst. If the simulated coordinates of the burst are identical to the coordinates of the simulated target, both missile and target will be "destroyed." The "kill" will show as a very realistic display on all radar scopes as they "bloom" from the explosion and randomly follow bits and pieces of "wreckage" and, after a few short seconds, the target indication will disappear from the scopes.

For additional command training, the simulated missile phase may be placed into three different modes of action: HIT, MISS, or WILD. In HIT, the action will always result in a "kill." In MISS, the action causes the missile to disappear on burst but the target blip will remain on the scopes, unaffected. In the final mode, WILD, the action will cause the simulated missile to travel an erratic trajectory, sending the data to the plotting boards and causing a display which will aid the battery commander in making his decision

whether or not to prematurely destroy the WILD missile and get another one on the way.

One of the more frustrating problems experienced in training is how to provide practice in the recognition of radar jamming and, once it is recognized, taking effective counter action. The simulator will be capable of simulating certain types of electronic jamming, causing them to appear on any or all of the radar scopes. This may appear either as spot or swept jamming.

Any one of the targets may be made to appear to be dropping window or chaff. Artificial ground clutter, such as sea or storm return, may be duplicated on transparent slides and transformed into radar modulations so that it appears realistically as unconventional or particular ground clutter.

AS with most technical equipment, the tracking simulator is only as efficient as its operators. A minimum of three technicians with varying degrees of training and skill will be needed to use it most effectively. At least one of these technicians will have been trained by the Air Defense School to perform the necessary electronic maintenance on this complex instrument, receiving an intensive course covering electronic fundamentals and the electro-mechanical principles involved. The maintenance technician will be trained also as an operator and, with this latter knowledge, will be able to train personnel at unit level in the skills needed by the other two members of the simulator crew, the instructor and the manipulator.

When it is operational, Army Air Defense Command will have a practical electronic training device which will give the on-site radar operator and missile fire control team faster and more realistic training in all the modern aspects of air defense.



In this Arctic supply operation getting the loaded harbor craft from the cargo vessels to the unloading beach

ICEBERG DODGERS of the TRANSPORTATION CORPS

The men who supply the Arctic outposts of the DEW Line radar screen have a hard and hazardous job to do—and they do it well

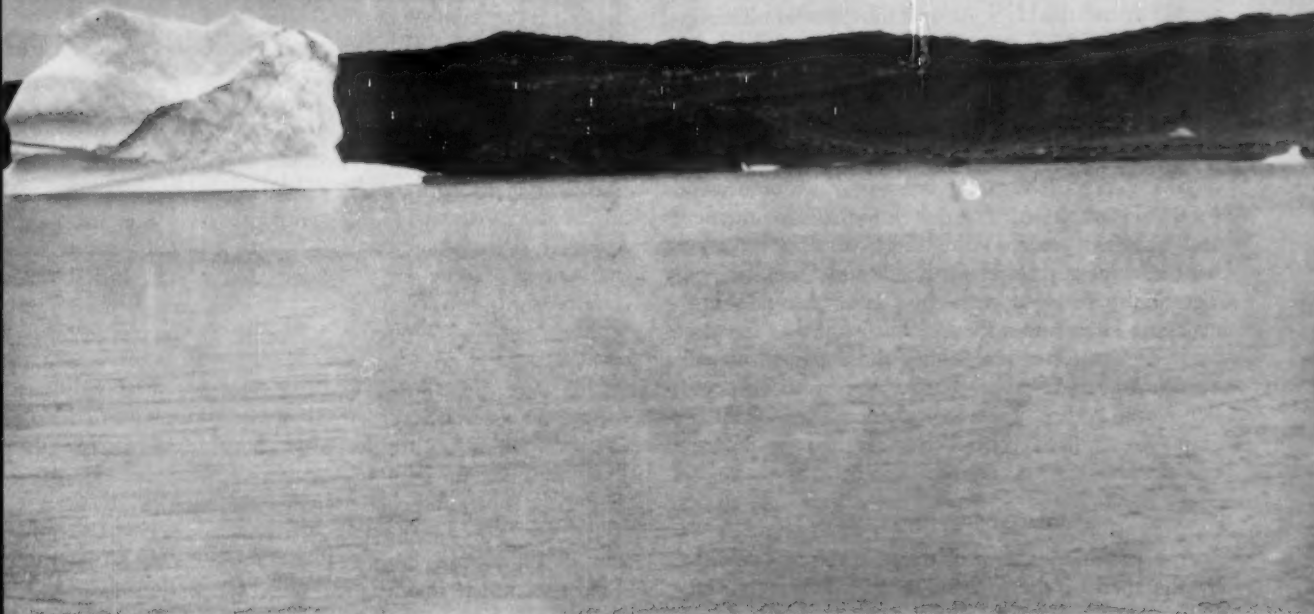
Major General Evan M. Houseman

FOR the two thousand troops of the Army Transportation Corps who, in 1957, for the seventh year were assigned the problem of supplying and resupplying our northernmost bases in Newfoundland, Greenland, Labrador and northern Canada, the famed motto of the postal service might well be paraphrased to read: "Neither snow, nor fog, nor ice, nor mountainous terrain, nor raging tides, nor gloom of long arctic day stays these couriers from the hazardous completion of their appointed rounds."

In early September 1957, after battering against the worst ice and fog of the last fifty years, these troops finally reached Hall Lake in the Foxe Basin of Canada, and were making delivery of vital supplies over-the-beach to the Distant Early Warning (DEW) Line sites. Already delayed more than three weeks by the jammed and packed ice in the seaways leading into the upper reaches of Hudson's Bay, Sub-Terminal BAFOX of the Transportation Terminal Command (7278), the U. S. Army element of Joint Task Group 6.3, poured supplies and material across the Arctic beaches for the resupply of the eastern segment of the DEW Line.

Even as the unloading operations began, and as

Major General Evan M. Houseman, USA, commands the U. S. Army Transportation Terminal Command (Atlantic), in Brooklyn, N. Y. During World War II he was an infantry battalion commander in the Pacific, and later G4 of I Corps. During the Korea action he commanded the 7th Transportation Major Port at Pusan. He has also been post commander at Camp Kilmer, Special Assistant to the Chief of Transportation for Amphibious Operations, and Assistant Chief of Transportation (Military Operations).



required skillful maneuvering, sometimes for miles, through seas seeded with icebergs and often shrouded in fog

the small harbor craft of the Army shuttled back and forth from the cargo ships to the beaches under shrouds of fog and against swiftly running currents and extreme tidal changes, the first snowfall of the coming Arctic winter blanketed the ground.

The brief Arctic summer was over, and it was time to think about getting out before the ice closed in.

A happy marriage

While the Atlantic Transportation Terminal Command had been familiar with this problem for several years during each of which these supplies had piled up ready for shipment at our East Coast terminals, it came to first hand grips with the problem on 1 April 1957, when the Northeast Air Command (NEAC) was in-

Eskimo children with their dogs watch excitedly from shore as one of the Army harbor craft maneuvers for a landing on the beach near their small fishing village



activated, and the U. S. Army Transportation Terminal Command (7278) was placed under our immediate control.

It was, so far as we were concerned, a happy marriage.

For the past six years we had participated actively in the supply problem. At pre-season conferences, we obtained from the Air Force their tonnage requirements and priorities, ordered the cargo into our ports, assembled it at our Hampton Roads and Brooklyn Army Terminals, arranged with the Navy's MSTS for the necessary ships and with MATS for airlift, and documented, manifested and loaded the cargo. Placing the 7278th and its responsibility for the unloading operation under ATTC was a logical completion of the program. Centralized control has resulted in increased efficiency.

Interservice cooperation

As a possible instance of this, the record established by the men of the 569th and 854th Transportation Corps Terminal Service Companies at Thule, Greenland, should be cited. During a twenty-four-hour period in August they discharged a record-smashing total of 4,032 measurement tons of cargo. The previous tonnage discharge record was established in September 1956, when 2,444 measurement tons were handled in a twenty-four-hour period.

The entire DEW Line support operation is unique

in that it is a joint Army and Navy effort in support of the Air Force. The Transportation Terminal Command (7278) has its permanent, year-around headquarters at Pepperell Air Force Base, Newfoundland. MSTS also has a small permanent party there. TTC (7278) maintains six permanent parties at water ports near air bases throughout the north. These are at Thule, Sondstrom and Narsarsuak, in Greenland (Narsarsuak was closed out in September 1957, and the detachment withdrawn); Goose Bay, Labrador; St. Johns and Ernest Harmon AFB in Newfoundland. Frobisher Bay on Baffin Island is manned temporarily during August and September. The Command also has a harbor-craft maintenance detachment at Argentia, Newfoundland, where harbor craft are stored, repaired, supplied and crewed. Soldiers and sailors work side by side at this Navy installation.

Besides operating these eight detachments, TTC (7278) employed two mobile sub-terminals in the summer of 1957. Sub-Terminal BAFOX resupplied DEW Line sites in the Baffin Island and Foxe Basin area in August and September, and Sub-Terminal GAP-PINE resupplied Pine Tree and Gap-Filler radar and communications installations in Newfoundland, Labrador and Baffin Island from June through November.

The 1957 supply mission

In 1957 the Army and Navy participated in three separate joint task groups for the resupply of the DEW

Much heavy equipment was needed to unload the cargo on the rugged, rocky Arctic beaches and haul it inland





At St. John's, Newfoundland, Col. Norman H. Gold, CO of TTC (7278), briefs visiting officers on the Northeast area supply operations. Left to right: Col. Gold; Maj. Gen. Evan M. Houseman; Vice Adm. John M. Will, USN, Commander MSTs; Rear Adm. G. Wauchope, USNR; and Commodore O. C. S. Robertson, RCN, of the MSTs staff

Line sites in the eastern areas of Canada. Similar groups worked the western sites together.

Joint Task Group 6.1, with headquarters aboard the USNS *Sagitta*, delivered cargo to the sites along the Newfoundland and Labrador coasts, as well as to Frobisher Bay. Joint Task Group 6.2, aboard the USNS *Lindenwald*, worked the same area.

Joint Task Group 6.3, the largest of the combined Army-Navy operations, covered the vast areas of Baffin Island and the entire Foxe Basin north of Hudson's Bay. It also supported activities of the scientists involved in the International Geophysical Year by discharging cargo and equipment at Thule to be used in ice-cap observations there.

The concept of operations was the same for all three groups. Early planning by my staff and TTC (7278), in conjunction with the Air Force and MSTs, resulted in a detailed plan of maneuver whereby the specially trained Transportation Corps terminal service companies were stationed aboard and operated from Navy landing ships, dock (LSDs) for the rendezvous and discharge of cargo vessels at anchorages near the coastal areas where the Air Force communications sites are located.

Early training for the job

First preparation for the summer shipping season activity began early in the spring of the year when training began at the Transportation Corps Training Command at Fort Eustis, Virginia, for the men of the ten Transportation terminal service companies, which augmented the TTC (7278) for the summer mission.

Three of these terminal service companies underwent training in stevedoring, maneuvering of harbor craft and orientation on the specialized type of cargo handling demanded for the over-the-beach discharge of supplies at the undeveloped beach locations.

Because most of the discharge points do not possess any fixed facilities (such as piers, cranes and shore-based cargo-handling equipment), each of the terminal service companies was outfitted with all of the heavy rolling and tracked vehicles (crawling cranes, truck-mounted cranes, bulldozers and traxcavators, as well as 2½-ton trucks and 12-ton tractor-trailer units to haul the cargo inland to the storage areas of the site, often over extremely mountainous, hazardous terrain). They were also equipped with two types of harbor craft: landing craft, mechanized (LCMs), and landing craft, utility (LCUs), to insure that each one of the joint task groups could be completely self-sustaining and could perform the required over-the-beach operations.

Early word on supply needs

Concurrent with this training phase was the indication by the Air Force, through their supply channels, of the myriad items and the vast tonnage (close to 350,000 measurement tons and almost five million gallons of petroleum products in 1957) needed by the isolated communications sites and air bases.

Further coordination with the contractors who provide the many items of supply for the Air Force, saw the cargo delivered to the Stateside terminals for temporary storage and properly timed loading aboard MSTs-supplied cargo vessels. All cargo destined for the Gap-Pine or the DEW Line operation was marked and color-coded by package for the particular site to which it was destined.

Upon arrival at the Stateside terminal, detailed consideration of the route of travel and the itinerary of the cargo vessel decided the segments of cargo which were to make up the load for any particular ship. This study also coordinated information from hydrographic surveys, ice reconnaissances, weather forecasts, and dates of requirement for the supplies.

Again, coordination between the three services resulted in the loading of troops aboard the MSTs ships at the Norfolk area, and the departure of the first cargo vessels from our terminals, so as to effect their simultaneous arrival at the initial rendezvous point.

Making delivery

Once in rendezvous position, the task group, consisting of the LSD and one or more cargo ships and tankers, escorted by icebreakers when necessary, began its approach to the first point of delivery. In most cases this location was a rugged, rocky stretch of Arctic beach, and required a reconnaissance by the task group commander and the Army element commander to learn under just what conditions they must work. Frequently, a Navy underwater demolition team was called upon to blast submerged rocks or other obstructions from the entranceway to the beaches. Accurate knowledge of the tides and water conditions was of vital importance, to insure that the LCMs and the heavier LCUs could get far enough into the beach approach to drop their ramps

and discharge the heavy mobile and crawler cranes.

Once the equipment and the harbor craft of the terminal service company had been taken from the well deck of the LSD and the cranes had been set up on the beach, the discharge became a three-phase operation. The first phase placed the hatch gangs of the terminal service company aboard the cargo vessels where holds were opened and gear rigged to start the tonnage flowing to the LCUs tied alongside the ship.

Dodging icebergs

When loaded, the harbor craft headed for the beach discharge point. This required skillful maneuvering, sometimes for miles, through seas seeded with icebergs and shrouded in fog. Excellent communications, provided by a separate radio net, maintained dispatch and location control on all of the harbor craft, which were dispatched by an operations office set up aboard the headquarters ship, the LSD.

Upon arrival at the beach, the loaded harbor craft maneuvered into position under the hooks of the shore-side cranes and the cargo was swung ashore for transport to the storage areas designated by the Air Force personnel contractor manning the installation.

Around-the-clock toil

Every effort was made to capitalize on the long days of the Arctic summer, and the men of the joint task groups, particularly the personnel of the terminal service companies, worked around the clock, to effect the delivery of the cargo during the relatively short-lived summer, the only time the breakup of the Arctic ice will allow the operation to be carried on at all.

When the cargo had been delivered to the storage area, the joint task group loaded all its equipment back aboard the LSD and in convoy with the cargo vessels proceeded to another beachhead for a similar operation.

The TC stevedore-soldiers performing this over-the-beach delivery of cargo and supplies wrote new chapters in the doctrine for the handling of harbor craft and amphibious operations. Outstanding among these operations was the work performed at Frobisher Bay.

Battling a 37-foot tide

For the Transportation Corps, this was the first occasion to resupply the Air Force facilities at this Baffin Island site by means of harbor craft, although resupply operations had been carried on here in 1955 and 1956 by barges, amphibious, resupply, cargo (BARCs). In the two previous seasons the BARCs had made it possible to minimize the effects of one of the world's largest tidal changes, which occurs in Frobisher Bay, by virtue of their ability to travel both in the water and over the lengthy beach areas.

The tidal change, as high as thirty-seven feet, demanded perfect timing in order to place the harbor craft high enough on the beach for the cargo discharge into vehicles, as well as expert seamanship and maneu-



A Transportation Corps LCM in the flooded well deck of the USNS Lindenwald, one of the Navy landing ships, dock (LSD), which served as floating bases for the terminal service companies and their harbor craft

vering of the LCMs and LCUs in their approach to the long, sloping beach. The operations at Frobisher accomplished more than just delivering the lifeblood of the Air Force installations. With it came the experience of a beachhead location unique in the world, involving tremendous tides, the demand for more than a general knowledge of the weather, coordination of the operation to coincide with the tidal changes and the weather, cooperative scheduling of the loading at the cargo ships by the hatch platoons with the dispatch of the harbor craft to the beach, and pacing and conserving manpower so as to allow the sub-terminal commander the ability to utilize the full potential of his forces when the sea, weather and tide dictated his periods of productive operation.

Maintenance equals effectiveness

Everywhere in the mobile force, and with every phase of the operations, the keynote of retaining operational readiness was keeping the boats, vehicles, heavy equipment and gear under constant first-echelon maintenance. Heavier maintenance of organizational and field types and repairs were made aboard the LSD, where shop facilities were present, while en route to the next beachhead discharge point.

For the Transportation Corps, the store of knowledge gained in this supply expedition goes down in the books as a source to be called upon when and if full mobility, anywhere in the world, should be the order of the day. The mobility displayed by the Transportation Corps force, its complete self-sustainment, and the fact that the mission was manned entirely by military personnel serve to indicate its adaptability for operations anywhere in the world, as well as for dispersion, if necessary, under atomic warfare conditions.

Another Fable for Today

MAJOR GAMMA RAY

THE good Grubians were in trouble again. These little, placid, normally happy people were only three inches high and lived on the very tiny planet of Gruba, millions of miles from Earth. They had never heard of Earth and were not even aware of its existence. The good Grubians were very prosperous people and had a very high standard of living because they spent their money for material things. They liked to sing and talk and be gay and they were very, very peaceful. They didn't like violence. If they had arguments which couldn't be settled by talk, and they were willing to do a great deal of that, they would fight with cotton balls at thirty Earth-size paces. But now they had a very, very acute problem.

Chevkrush, leader of the bad Grubians, was getting belligerent again and Joe Smith, who was the leader of the good folk of Gruba, felt the need to do something about it. That bully, Chevkrush, had attached a small ball to the end of a string and was twirling it menacingly over his head. The string was so long that at times the ball swung over the lawns of the good Grubians but it was so high that no one could see just exactly what it was.

Chevkrush just laughed when one of Joe Smith's emissaries talked to him about it. Chevkrush said that the ball was really nothing. He was just spinning it around to see how long he could make it whirl without coming down. He said, "It is just like those yo-yo contests you have except my ball goes around over my head."

But the good Grubians were worried. Joe Smith called in all his wise men and these wise men allowed as how they thought the ball had something in it. They weren't sure just what was in it but they figured there must be something besides a solid ball on the end of the string because every time the ball came over their backyard they put on their ear horns and they could hear something like a "beep-beep."

WHAT to do! Joe Smith wrung his hands. The very wise old ones walked slowly about with their heads down and hands behind their backs and couldn't decide among themselves who would be in charge of what it was that should be done. One of the younger wise men, more aggressive than most, said that he had attached a ball to a string and he could have twirled it a long time ago. "Could I please spin mine now?" he asked one of the smartest of the wise men.

This man thought a while. He was the one to whom a



"Ball spinning is none of your business," the white-haired man said. "Your job is to protect the Sunflower seeds."

lot of people looked for help when the country was in trouble. He had beautiful white hair and a very intelligent face, and knew an awful lot about building carts.

Finally he said: "No, you can't twirl your ball because I told one of the others to do it and he's not quite ready. It wouldn't look good for you to be spinning yours when really you weren't supposed to be thinking about those things. You know very well that all you were supposed to be thinking about was how you would stop the Bads if they started to come across the back fences again or if they sent one of their pals over here. You're supposed to be thinking only about mud and dirt. Ball spinning is none of your business even if you do know how." Everyone listened and did what the white haired man said because he was so smart and certainly did know how to build carts.

And so the wise men fumed and talked and jabbered. They fussed at one another and while they were very smart men, and everyone knew that, they squabbled among themselves. And they came from such good happy families too.

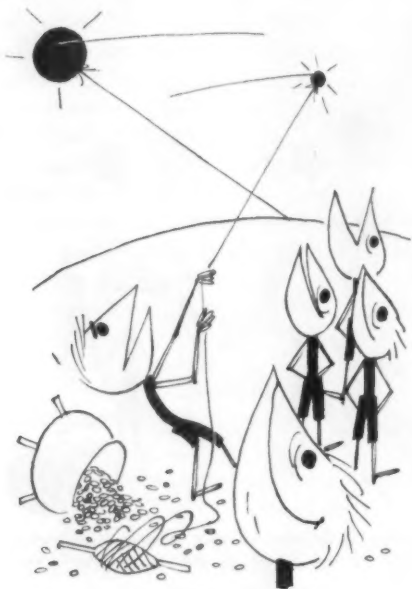
ANOTHER of the younger ones, and he was the man who was all the time making sail planes out of maple leaves, said that he had a ball which was attached to a very, very long string and if someone would just give him permission he would be only too glad to get his ball spinning much, much higher than Chevkrush's. He would

*See "Fable for Tomorrow" in the June 1957 issue.

even land his far, far away. But no one could really decide if that were true or if he should be allowed to do so. And so the maple-leaf-sail-plane-maker just did nothing too.

Another of the wise men thought it would be a good idea if they were to somehow make Chevkrush's ball fall down or make him stop or something. But Joe Smith stepped into the discussion at this point and asked if that wouldn't make it seem like they were jealous and suspicious. "Hadn't Chevkrush said that he was just testing the thing?"

"Yes, that's true," everyone readily agreed. They were



"WE sure showed those Bads, didn't we?"

really afraid to tell Joe everything they knew.

Oh, the woes that beset the good Grubians! Everyone was running every which way and every time the ball came whizzing and beeping overhead there would be a new flurry of excitement. Some people thought that if they ignored it it would go away or they would wake up and learn that they had dreamed about it and then all would be well again. But the ball didn't go away. It just kept spinning and spinning.

FINALLY, the younger wise man who had said that he could spin a ball too said to the great white-haired wise man, "Please, Sir, let me put my ball to spinning. I can do it in just a few minutes if you'll just let me have a few sunflower seeds to buy some more string with." (The Grubians used sunflower seeds for currency because it was so easy to come by—they just planted a little bit and pretty soon they had real money trees—and up until now everyone had been very very happy with the arrangement.)

But the great white-haired wise man very patiently said: "No! Wait for our regular ball to get ready. That wise man over there, the one who is floating those sticks on that little puddle, will pretty soon look up and remember that he has to get a ball spinning pretty soon. We'll wait for him."

And so the good Grubians waited and waited and waited.

Pretty soon Chevkrush started spinning another ball and this one was a lot bigger than the first one. And there was something funny about this one because it kept flashing lights on and off and there were many funny noises that the wise men could hear through their ear horns. And some of the really wise people of Gruba felt that they were being looked at by the new ball spinning over their heads.

And they got more and more nervous. If Chevkrush could really look at them from that ball (Oh, fantastic thought!), couldn't he throw some of those big bang balls that he was making and hit them right where it would hurt the most? "Goodness, yes," said one of the wise men. "This might get to be real serious."

And so they pleaded with the wise man by the puddle to stop playing with the sticks in the water and get his ball spinning. Finally, very reluctantly, he put away his sticks and put a little, little ball on the end of a string and tried to spin it. The first two times the string was too short and the ball didn't go very far. The next time the knot at the end came undone and the ball went bouncing off.

JOE Smith just didn't know what to do. Finally he said to the old wise man with the beautiful white hair: "I want you to get all the wise men together and stop all this talking and bickering and running around. If you don't I'm going to appoint a new wise man in your place. Have them put all their sunflower seeds in one pot and have them work on a much larger ball—one that can carry some of our people—and we'll show those Bads who is going to win the game of the flying balls. I want no more fooling around. You listen to those lesser wise men of yours even though one of them whom you didn't ask may have something to say about it. I'm not sure that man who floats those sticks should have been put in charge anyway. Now you get busy!"

This did not please the old white haired wise man one bit, so he quit in a huff and went back to his carts, and Joe Smith replaced him with another wise man who was supposed to be very good at cleaning things up. This new wise man had an open mind about such things as ball-spinning, so when the first younger wise man came to him and asked for a chance at it, he said "Sure, here's a few extra sunflower seeds, you can go ahead and try, too."

SO the younger wise man put a ball somewhat smaller than Chevkrush's on a pretty long string and spun it like mad. He was very careful not to let it swing over Chevkrush's yard so Chevkrush couldn't listen to it on his ear horns and this worried the leader of the Bads almost as much as the fact that the Goods had a ball spinning.

The good Grubians were all surprised and also very pleased. They patted the first younger wise man on the back and said complimentary things such as "Well, WE sure showed those Bads, didn't WE?" and "Guess WE are just as smart as that old Chevkrush, ain't WE?"

But when it came to talking about parceling out sunflower seeds, the other wise men got their heads together and decided that they wouldn't give the ball-spinning wise man any extra, as he was rather young and besides, maybe there were a lot of things far more important than ball-spinning. The moral of the story? Even if you stop puddling around and get your balls spinning, it won't necessarily put any money in your pocket.

XX

MISSILE DIVISION

LIEUTENANT COLONEL HARRY C. BEAUMONT

OUR Army's practical field experience with its Pentomic division suggests the need for a new battlefield unit which, appropriately, might be called the "missile division."

... fighting. . . . fighting has determined everything appertaining to arms and equipment, and these in turn modify the mode of fighting; there is, therefore, a reciprocity of action between the two."

Therein lies the whole technique of fighting a war: on the one hand are the instruments; on the other, their use. The first requirement includes the weapons and the units we design to use them; the second embraces the tactics and operations through which the power of weapons and units are applied in combat. In the past, long periods elapsed between the introduction and development of a weapon and perfection in its use on the battlefield. As a consequence, weapons were developed slowly, and were tied to weapons development-time sometimes measured in centuries. For example, although gunpowder had been used for years, it had no real and drastic effect on combat organization until cannon became mobile

Lieutenant Colonel Harry C. Beaumont, Infantry, served in an infantry battalion in ETO during World War II, and in the G3 sections of Allied Land Forces, Southern Italy, of VII Corps in Germany, and of the Department of the Army. He is now on duty in the Pentagon.

HONEST JOHN



SERGEANT



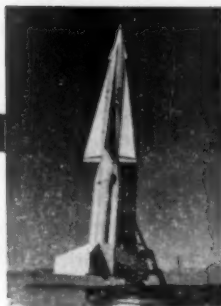
JUPITER



LACROSSE



NIKE HERCULES



REDSTONE



and their rates of fire and the lethality of their missiles increased significantly.

Today, the nuclear weapon and its carrier missile rule out long periods of trial and experimentation. Rapid technological advances, both in nuclear-weapons design and missiles systems deliveries, dictate many and frequent changes in tactical organization that must look far into the future so as to absorb weapons of rapidly increasing range, accuracy, and lethality. The time has come when we must examine a proposed missile division with the idea of integrating it into our battle organization. At present, the latest unit, of division size, is called simply "missile command."

The missile command is a hybrid

Actually, the missile command began as an expedient, and represents a capability rather than a forward projection designed to lead, rather than follow, technological development.

Because long-range missile-delivered nuclear fire is needed to support both our own and other friendly forces in meeting an atomic assault, missile commands were organized. Almost immediately, however, it became apparent that a skeletonized missile command consisting of only fire units would not be able to accomplish the desired task.

The missile command required a surveillance and target acquisition system, so one with limited capabilities was added to its organization. A logistical element was added because it needed its own organic logistical support, since frequently it would operate at distances remote from other friendly units. The missile command also needed organic protection, both for firing units and for logistical installations supporting it; for that, armored cavalry and infantry units were assigned. The net result is that our missile command, which began as a fire-support unit, is really a combined-arms team.

As missiles developed, longer-range fire units were added. This broadened the area of the missile command's operations, and as a consequence, greater logistical support and larger security elements were required. The net result is that our missile command has become an almost indefinable hybrid which does not fully integrate Army missile capabilities into our field forces. Nor does the term *missile command* describe an organization easily recognized within the Army, much less outside of it. The definitions of *battalion*, *regiment* or *division* have substance, but *command* is ambiguous, furnishing neither description nor identification.

We define *division* as "a tactical unit composed of the Arms and Services and responsible for its own internal administration. The division is on a command level below a corps and above a regiment or brigade." *Missile division* more closely fits this definition.

In considering the organization of the missile division, we must analyze the problem of fire support as a whole. To insure integrated, effective and economical fires, such a division must control a wide spectrum of ranges and weapons yields.

In using his several missiles and their different types of warheads, the commander must not be forced to send a boy to do a man's job, nor to use a sledge hammer to drive a tack. He needs weapons systems with ranges and in varieties of yields sufficient to strike any target.

It should not be necessary to use a highly complicated and very expensive long-range missile for fires that can be more easily delivered by a smaller brother. Consideration should also be given to the volume that fire units can deliver. The missile division's organization should reflect the fact that a fire unit with smaller missiles systems can engage a greater number of targets in a given period than it can with larger weapons.

As equally important as ranges and volume of fire is the availability of a wide variety of weapons yields. The missile-unit commander must not be forced to use a large weapon where a smaller one will do. An organization which places such a limitation upon him is unsound, unnecessary, and wasteful.

With these considerations in mind, let's turn to a more finite examination of the missile division's structure. Its organization necessarily must be predicated upon a combination of its assigned tasks and the weapons available to accomplish its missions.

Use of missile division's fires

A missile division must be able to support a corps or an army. It must possess surveillance and target acquisition commensurate with the ranges of its weapons. It must be capable of sustained action in combat, provide its own local security against attack, and form task forces for special operations.

Our Pentomic infantry, armored and airborne divisions have the means of delivering their own nuclear direct-support fires, including Honest John and Little John. While they can deliver the bulk of their own direct-support fires, a need exists for reinforcing the fires of combat divisions. More important, however, we must provide means of attacking more distant targets which are the direct concern of corps and field army commanders. The missile division should have the mission of furnishing these reinforcing, close-support, medium- and long-range fires, because of the broad areas over which the corps and the army will operate.

Close-support fires against forward troop concentrations, command and control installations, supply points, advanced missile-launching sites and airstrips, would be the task of the missile division's Sergeant SSM battalions.

Initially, mid-range fires—against transportation facilities, logistical installations, airfields, missile sites, deep reserves and facilities which, when destroyed, will assure battle-area interdiction—would be delivered by the missile division's Redstone battalions. However, a longer-range missile must be developed to extend the interdiction area; it would replace Redstone.

The missile division's fires against mobilization bases, to include troop-training areas, logistical installations and facilities, production bases and long-range missile

The Missile Division must have organic infantry, armor, armored cavalry and surveillance and target acquisition systems



sites which support the enemy's war effort, would be delivered by the missile division's long-range fire units, its Jupiter battalions.

Its Hawk and Nike-Hercules battalions would provide the protection initially required against enemy aircraft and missiles which penetrate the army or corps air-defense system. When operational, Plato battalions would replace those armed with Hercules.

Combat surveillance and security

The missile division must have an organic surveillance and target acquisition system. The rapidity with which targets will appear and disappear and the speedy reaction required to engage them require that the surveillance system for the most part be organic to the missile division. This surveillance can be carried out by a battalion equipped with the necessary drones, radar, infrared, electronic and other means of surveillance and target acquisition. This battalion must be able to acquire data to a minimum forward distance of five hundred miles, although a longer depth would be

preferable. Targets for the Jupiter battalions would be spotted initially in much the same manner they are developed today. This would involve the usual compilation of intelligence through overt and clandestine operations. In addition, special operations would be used to spot Jupiter targets. When practicable, the military satellite might become a prime source of Jupiter target information.

Like other types, the missile division must be capable of sustained action. Since it will operate at considerable distances from normal supply points, its maintenance and supply must be furnished by organic units.

The missile division must be able to meet any of the usual ground threats it will encounter. Because of the nuclear battlefield's great depth and the dispersion of units upon it, the bulk of the missile division must be located in areas which, for the most part, would contain a minimum of ground combat forces. Necessarily, then, the missile division must be able to protect its fire units and logistical installations against enemy forces up to reinforced regiments in size which might

airdrop behind or infiltrate through our combat divisions. It must have sufficient infantry and armor or armored cavalry, heavily armed with highly mobile short-range missiles like Little John and Lacrosse, to enable it to destroy these groups which threaten the security of our launching units or logistical installations. These security elements need not be large—say, two or three battalions with nuclear armament—but they must always be ready to protect our delivery units from major attack and hold off enemy groups until assistance arrives.

The missile division, like the Pentomic infantry, airborne or armored division, must be able to quickly organize task forces tailored to mount special operations. For example, a Sergeant task force may have to airlift and be dropped in a particular area where such a force is urgently needed. Task forces, with their necessary augmentation from division, must move swiftly.

Air and ground mobility

Finally, the utmost in organic mobile and air transportation is vitally needed in the missile division. Essentially, this division would be a D-day force which would join the battle immediately. Therefore it must move itself quickly. It cannot base upon fixed installations because experience has proved that a force fixed by space and time—even a short time—will be detected and destroyed.

German experience with V-2 shows the importance of mobility to the missile division. When an operational capability for V-2 was being debated, the scientists felt that V-2 should be fired from a fixed installation; the Army officers argued that it should take off from a mobile platform. The scientists favored the fixed launching site because it provided readily available machine and work shops, storage facilities, and easy fueling, and because the physical comforts at such an installation would improve the general efficiency of launching crews. Further, if the installation were underground and constructed of reinforced concrete, it would be relatively invulnerable to Allied bombing.

The officers, on the other hand, reasoned that, despite the advantages of creature comforts and underground protection, bomber crews would detect and destroy these installations rather easily. The result was a compromise: some V-2s went to fixed installations, some to mobile field launchers. The fixed installations were picked up by photo interpreters. By war's end, not one V-2 launched from a hard, permanent site was successful. We must remember this when organizing and equipping our missile divisions.

Interim organization

To accomplish its missions, the missile division initially should have two Redstone and two Sergeant battalions; one Little John and one Lacrosse battalion; a reconnaissance (combat surveillance) battalion; two Nike-Hercules battalions; one Hawk battalion; two infantry battalions, along with a tank battalion or ar-

mored cavalry regiment, and an engineer combat battalion. The command and administrative set-up should include a command battalion, a signal battalion, a supply and maintenance group, and a combat aviation company.

This interim organization is based upon the weapons now available. The missile division will achieve its full potential only as new weapons become operational and are integrated into its organization. As soon as available, two Jupiter battalions should be added for delivering long-range destruction fires.

We cannot afford to stand still

It is difficult now to determine exactly the capabilities of future missiles. Evidence at hand suggests greatly simplified operation. However, it seems reasonable to expect that we shall develop a missile with a range on the order of five hundred to eight hundred miles. If we do, we must consider arming Redstone battalions with these new missiles and discarding the short-range types they now have.

When Jupiter and a 500-to-800-mile missile are available, it would be wise to consider organizing two types of missile division: one type to include battalions with Jupiter and 500-to-800-mile missiles as their major armament, the other to have Redstone and Sergeant battalions as fire units.

Alternative organizations depend upon where the combat divisions will operate in the future, and the mobility and simplicity of operation developed for Sergeant. As its area of occupation expands, the ground-combat division must be provided organic weapons capable of covering its entire area. Therefore, we must consider making the Sergeant organic to the ground-combat division.

If we do this, the first type of missile division could be organized around two battalions with 500-to-800-mile missiles and three battalions armed with Redstone. The other type would have battalions with only Jupiter as their main armament.

In any event, these missile divisions will provide units which can meet all conditions of the nuclear battlefield. They will be able to deliver the close-, medium- and long-range fire support required by ground-combat forces and to furnish integrated nuclear fire support.

The missile division's surveillance and target acquisition system will be commensurate with the performance of its organic weapons. The missile division, as I have said, will be a D-day force designed to participate in the initial missile exchange. It must be highly mobile and not offer a target in a concrete cocoon that can be pinpointed and destroyed.

The need for missile divisions like those I have outlined exists now. All the weapons I have allocated to them will become operational soon. The Army must move rapidly to assure that the missile division's capabilities will meet its missions. It's time we heeded Major General J. F. C. Fuller's admonition: "The sole thing impossible in war is for it to stand still."



How Do You Get That Pride?

BRIGADIER GENERAL EDWIN H. RANDLE

It's unit esprit out of top performance
in all worthwhile things

THE company waited in a greasy ditch. Across the road the ground sloped up and was dotted with trees and underbrush—not much underbrush, but some. The artillery concentration would lift at 0800. It was almost that now.

Last night they had crossed the Meuse River and canal and slept in the woods on the cliff behind them. During the night the battalion commander ordered an attack for 0800, preceded by a fifteen-minute artillery concentration. A light rain had fallen through most of the night. The Captain had awakened at daylight. The rain had stopped, but the sky was overcast. He had

slept hard, with his gas mask for a pillow and helmet over his face to keep off the rain. He had felt relaxed, as though his bones were disconnected and he must pull them together.

He was a replacement who had joined the regiment a week ago in the Bois de Septsarges, near Mont-faucon. He had brought nine lieutenants and thirteen hundred men from a replacement division in central France near Le Mans. When the five-day trip ended, twenty-two men were missing. The Captain expected to be tried for losing so many men from the *40 hommes* 8 *chevaux* boxcars. Instead, he was told that was the smallest loss from any train of replacements the division had received.

Back at the replacement division morale was low. The senior officers were disappointed and peevish because their division had been broken up. They raised hell with everyone, especially junior officers. One day the Captain kept count: nine officers, including the division commander, visited his company to raise hell about something. He got away by reporting himself a surplus captain.

But this regiment had the finest spirit he had ever

Brigadier General Edwin H. Randle, U. S. Army, Retired, commanded Company D, 6th Infantry, in France in the First World War and the 47th Infantry, 9th Infantry Division, in North Africa in the Second World War. On being promoted to brigadier general he left the 47th and went to the Pacific theater where he was assistant division commander of the 77th Infantry Division. Now living in Clearwater, Florida, General Randle has contributed "It's Situation No. 2" (December 1952), "And They Marched, Every One" (September 1953) and "Freshen Up the Label" (July 1956), to this magazine.

seen. It was wonderful, a completely different atmosphere. No one snoopied about looking for ways to gig him. Staff officers came up only to see how they could help. Two days ago the division inspector showed up, wanting to know if the men needed dry socks, clean underwear, or overcoats. He got the stuff, too, and sent it up. The Captain was proud to be in this outfit. His superiors accepted him and seemed to have confidence in him. His spirits soared. He would not let them down.

The men accepted him, too, though he had yet to smell powder and prove himself. They had been in combat since before St. Mihiel, except the replacements. It was a proud company of a proud regiment. A couple of days before he joined, another regiment gave ground before a sharp counterattack. The men of his company were still talking about it, cussing out the other regiment, ashamed because those men

wore the same division's insignia on their shoulders.

Pride demands top performance

There were only two lieutenants, the other two platoons being commanded by sergeants. All four had been with the company from the start. The day after he joined, the Captain asked the platoon leaders how they deployed. He asked because after the war started several systems came into use, including a tricky one adopted from the French. The platoons of no two regiments deployed in the same way.

"You tell us where you want the platoons," said Lieutenant McCormick. "We'll get 'em there." He was a cartoonist from Chicago, always drawing pictures in a sketchbook.

First Sergeant Cornet was small, not at all the civilian concept of a topkick. Quiet and mild, he got things



One kitchen had been shot out from under the big Polish mess sergeant, but he still pushed his rolling kitchen far forward

done and looked after the men. They liked him, the Captain could see right off. He had been First Sergeant since Camp Gordon.

The mess sergeant, a bartender from Buffalo, was a huge second-generation Pole, famous in the regiment for keeping his rolling kitchen close to the front. When anyone suggested it was too far forward he would explode: "To hell with the Krauts! Our men deserve hot food, and by God they're gonna get it!" One kitchen had been shot out from under him, in a manner of speaking, but that did not bother the big Pole. He and his mules and cooks could get that kitchen anywhere. Later, when the Captain was being carried back wounded, the first men he saw were the mess sergeant and cooks, rolling kitchen steaming and pouring out wood smoke like a Pikes Peak locomotive. They were following the attack, ready with chow when the men could eat. The big Pole stopped the litter bearers to ask the Captain how he felt. He slipped each bearer a pack of cigarettes. "You guys take it easy with the Captain," he ordered.

It was 0800 and the concentration still blasted, throwing up cones of dirt and smoke with crashing explosions. Really not much of a concentration, just a scattering of shells on the rising ground beyond the stone road, but it was steady. The Captain looked at his watch. It showed 0802. His watch could not be wrong; he had synchronized it with the battalion commander last night. There was no enemy fire and he stood up. The men, lying under cover of the road, watched him. Most were smoking, some laughed and joked. His runner fired a Very pistol to signal for the concentration to lift, but the flare could not rise above the trees on the cliff. The batteries back across the Meuse could not see it. Someone had goofed. He was not going to attack until the concentration lifted. The men's eyes followed him as he walked back and forth, left elbow up, watching the time. Some knew the artillery was firing too long and joked about it, but none took their eyes from the Captain. No one seemed worried or frightened, but every man in the two assault platoons watched him. He felt like an actor in a play.

Then suddenly the concentration stopped. There was a hushed silence. It was 0815, exactly. Cigarettes were ground out, grips shifted on rifles, legs were drawn up. They waited, tense and ready. The Captain raised his arm, took a step forward, then let it drop: that was the signal. Instantly every man sprang forward, every one. There were no laggards, no one held back. Surprise flashed through the Captain's mind—and admiration. It was strange, as though they were anxious to attack, eager to get going, to meet the enemy.

Later, when he had time, the Captain thought a great deal about that attack and how the men watched him and sprang forward when he gave the signal. Each seemed determined to be first, to beat all the others. But it did not puzzle him very long. The answer was too obvious: pride made them do it. Those men had a

magnificent pride in themselves, in their accomplishments. It rose above fear and gave them confidence. They risked wounds and death itself to prove to one another they were veterans, true veterans. They would rather die than have anyone in the company think them afraid, holding back. They had pride in the memory of those who were gone, pride in their company, their battalion, their regiment; pride in that red diamond, cut from French dress pantaloons, they wore on their shoulders. But the strongest of all was pride in themselves and in one another. It lay deep inside every man, a part of him. In a week the replacements had absorbed it. There were no lectures, no organized discussions, nothing like that, just talk among men; where they had been, what they had done, and reviewing again and again the exploits of those who were now in hospitals, or in scattered graves along the way.

Pride comes from accomplishment

Promotion came slowly after the war. He remained a captain for sixteen years, but stayed on because he loved to soldier, to lead troops, hoping some day he might command a regiment. That was his ultimate ambition: to command a regiment in war, if there ever was another war in his time. And during the years Company D, 6th Infantry—it was a rifle company then—was often in his mind. The big mess sergeant who had never let him down, the man from Tennessee, crawling under machine-gun fire until he was behind two nests, and one by one killing the gunners so his company could advance; the Captain's runner, a brave little kid, not more than seventeen, who was finally wounded and whimpered a little until the Captain reassured him and sent him back. Before that he would go anywhere under fire with a big grin on his face, always a big grin. He often thought of Sergeant Grey who had led a platoon as skillfully as any officer ever could, whose men would have assaulted hell itself if the Sergeant led the way. He would have, too, if the Captain said the word.

Over and over the Captain asked himself: How could one foster pride like that *before* entering combat, during training, so it would be there in their first action? That was not too hard to figure, either. Accomplishment was the key. They must do things they believed worthwhile, and not only do them, but excel in doing them, be better than the others, not in just one thing, but in everything, be the best in everything. He remembered hearing a senior officer he admired say: "Never be satisfied with mediocre performance. You may have to accept it, sometimes, until you can get improvement, but don't be satisfied with it."

He had noticed, over the years, that many officers were satisfied with mediocre performance. To make his outfit the best, he figured he had plenty of room to do it in.

So one day he became a colonel, and because there was another war on he was given a regiment to com-

mand. It was a new regiment, a little over a year old since reactivation, and already showed great promise because it had been commanded, before he got it, by an outstanding officer who had been promoted, one who was never satisfied with mediocre performance. But, the Colonel thought to himself, there is always room for improvement. So he went to work.

The will to win

When he took over, a division basketball tournament had just ended and the regimental team placed nowhere near the top. At about that time its showing in an amphibious training competition was not good. Next came a division boxing tournament. That, the Colonel said to himself, we are going to win, like we are going to win everything else from now on in, or bust a gut trying.

The Colonel knew some officers frown on athletics, except the intramural variety, pick-up games between platoons and companies. He believed in athletics, ardently, not just to win for the sake of winning, but because athletic and other intelligent competitions foster pride, unit spirit, and the will to win. Take for example the magnificent pride and spirit of West Point's corps of cadets. How are they fostered? By many things: selective entrance, an inspiring motto, public confidence and admiration, a glorious tradition, and other things, not the least of which are intercollegiate athletic competitions.

It is a grave mistake to downgrade athletics in the Army, but the correct objective must be recognized. Not athletic competitions for sports' sake, not for entertainment, not even for conditioning, but first of all to develop pride, unit spirit, and the will to win.

Someone said the heroes of England were developed on the playing fields of Eton. The heroes of the United States Army are formed, not only on the playing fields, but in the stands and along the sidelines. Those men, as much as the players, imbibe the spirit, the enthusiasm, and the pride of accomplishment.

No rules on the battlefield

All competitions have one advantage: there are rules. Obeying the rules is called sportsmanship. Losing gracefully is called sportsmanship. On the battlefield there is only one rule: destroy the enemy. Losing is unthinkable. Pride and the will to win definitely carry over from the athletic and military competitions to the battlefield. But once you enter the combat zone, forget sportsmanship. That is hard for Americans to do, because good sportsmanship has been so thoroughly ingrained in them. Troops going into their first battle must be warned never to expect the enemy to be sporting. It seems strange, but the American soldier can become as ruthless and violent as any in the world, yet show compassion for enemy women and children. And contrary to the expectations of many, it is daily demonstrated that after a war he once again becomes a good sportsman, and a kind and considerate husband and

father. Ruthlessness in war is a protective armor the American soldier assumes from necessity, but is able to discard along with his weapons when the war is over. Americans are not good haters, except for short periods.

Many American soldiers are dead because in their first operation they thought the enemy would be sporting, follow the rules. Others learn quickly. Once the Colonel saw a soldier, veteran of a number of operations, aim his rifle at the obviously dead body of an enemy infantryman.

"He's dead," the sergeant said.

The soldier fired a burst. "He's deader now," he growled. "I don't ever trust these sonsabitches."

Without pride there is fear and cowardice

But vastly more Americans are alive because of pride, theirs and that of their comrades, which would not let them give in to fear. Where pride and spirit are lacking, "anxiety complex" is frequent, as are skulking, malingering, self-inflicted wounds, the pinned-down cry, easy surrender, and prisoner collaboration with the enemy. There is a close correlation between lack of pride and all these things. Prisoners who refused to collaborate, refused to be brainwashed, fought back, took all the tortures and indignities the enemy could devise had tremendous pride, and you can bet your bottom dollar on that.

There are good competitions, but sometimes staff officers dream up weird competitions that serve only to harass the troops and accomplish nothing. The Colonel had seen competitions carried to silly extremes, like chrome-plating helmets, or having one set of equipment for show, a second for use.

About the worst he could remember was a transportation competition ordered for Monday morning. On Saturday each regiment sent an officer to select another regiment's scabbiest vehicle. Those vehicles must be ready for Monday morning's competition. There was an element of sadism in such timing. During the week, fine: but officers and men are entitled to weekends except in an emergency. The Colonel had known one or two generals in peacetime who liked to start long marches, or schedule big inspections on Monday mornings, for no compelling reason. Men had to work all of Saturday and Sunday getting ready. Tuesdays would have done as well.

To get back to the Colonel's regiment, the boxing team did win the tournament. Then came baseball. He took pains to select the best coach in the regiment and excused the team from afternoon training, but the division commander said that was too early, so practice began at 1500. The league games were exciting, but since they were played after 1600, many of the young married officers took off for home and missed them. That is, they missed the first game. After that the Colonel let drop the word that he thought all officers would enjoy seeing their regimental team win. It did too—the division championship.

Next came a big tournament of all kinds of events, but mostly training. There was every conceivable sort of drill, obstacle-course races, first aid and litter competitions, amphibious training events, and many others. An officer was designated to organize and train a team for each event. The Colonel told them to produce a winning team, or else. He smiled when he said, "or else," and they grinned back, but they knew him and knew he expected no mediocre teams. And almost every team placed first. They won so many events it was embarrassing. It had not been the Colonel's intention to make anyone look bad, but if other commanders were not aware of the strong relationship between achievement and pride, both personal and unit, he couldn't help that.

The best in everything

There were other competitions and the regiment won them all, and training was not neglected, as any officer or soldier who was there will tell you. The Colonel insisted on being the best in training too. One day a lieutenant told him to his face, "Sir, you're a perfectionist." The Colonel had to laugh. "Yes, I guess that's right, though I hadn't thought of it quite that way before. Let me recommend you become one, too." The lieutenant did.

Pride and spirit kept mounting. It was obvious to everyone. Officers and men knew they had them. Sometimes they boasted, which did not hurt them, and sometimes the Colonel bragged on them to their faces, which did not hurt them either, because they *were* good, exceptionally good. One day the division commander said, "I'm not interested in regimental spirit, I want division spirit." The Colonel remained silent. He knew spirit began at the bottom and welled up. Division pride would come when the division itself had a solid record of achievement, as later it did.

The pride and spirit were there

The regiment's first operation was one of the most delicate in the book, a night landing on a hostile shore, under fire. It was at Safi in French Morocco, on 8 November 1942. Many times that night, and after daylight as well, the Colonel was reminded of his old company of long ago. Though the troops were under fire for the first time, and in an intricate operation, there was the same pride and spirit. There was only a single minor failure, and that was due to poor officer leadership. The men under him were in no way at fault.

The night was intensely dark. Assault waves went in with glowing shells from a French coastal battery zooming over their heads. Then shells from the old battleship *New York* going the other way pierced the night. It was still dark when the assault troops hit the beaches. They drove off companies of the Foreign Legion and Moroccan troops and pushed on to capture all objectives by mid-afternoon. Though they outnumbered the enemy it was not a walk-away, as fifteen killed and about fifty wounded attested.

A wounded man was carried past the Colonel. Remembering his old mess sergeant he stopped the litter bearers.

"How do you feel?"

"Not so good, Colonel." The wounded man grimaced in pain, then the spasm passed.

"I'm OK, really I am." His face was pale and pinched.

"Sure you are!" the Colonel said, touching his arm. "I'm proud of you. You're lucky, really. One hour of war and you're going right back home!"

The man opened his eyes and looked at the Colonel. "I'm proud I belonged to the 47th, and that's for sure." The litter bearers moved on.

A lieutenant, covered by his platoon, walked up to an enemy battery of artillery and demanded its surrender. It surrendered, too, officers, men, guns, trucks—the whole works.

Private Adams would not stay pinned down when his platoon was stopped by close-range machine-gun fire. "To hell with this!" he said, and in plain view of the enemy stood up and emptied his rifle, killing or wounding the enemy machine-gun crew. His platoon moved on.

A lieutenant, a sergeant, and a private rushed a house and brought out four times their number of snipers.

The pride and spirit were there.

At the close of the campaign in Africa they were veterans in the true sense of the word, with the same quiet, deep pride he remembered in Company D. They got their Colonel promoted, as they did his successor, later. They ended the war in Europe with eight battle stars, many decorations and unit citations. And along the way they became magnificently proud of their division, too. The 9th Infantry Division had amassed a solid record of brilliant achievement.

After the war old timers told about how thousands of replacements in just a few days absorbed the pride and spirit of the regiment and became indistinguishable from the veterans.

Recently former Lieutenant Lindsey Nelson wrote his onetime Colonel: "You know, speaking about the 47th Infantry, I've thought a lot about that outfit. In later years I've got all involved with such subjects as esprit de corps, its value, and how one instills it. I'm still not sure just exactly how one goes about instilling it, but I know that during the days you commanded that regiment, we had it. I'm still goddamned proud of having been associated with that outfit, and that was fifteen years ago."

Pride, Lindsey, that's all there is to it: a man's pride in himself, in his comrades, his unit and his country—and someone who teaches him never to be satisfied with mediocre performance. How do you get that pride? It is not too hard. The old competitive spirit directed toward worthwhile achievement, the desire to excel, which nearly everyone has, to be the best, to win. Foster that and you can build tremendous pride and spirit.

THE MONTH'S READING

Junk the Apparatus

BURTON KLEIN
Fortune
May 1958

It is even more important to do something about opening the doors to more rapid technological progress within the services. The armed services have many officers and civilians who understand the problems involved in advancing technology, and who understand the importance of putting considerably more emphasis than we now do on new technology. But they are little heeded in the determination of how the R&D budgets are spent. Air and Army should have separate agencies, as independent as the Office of Naval Research, for administering programs in new technology. The budgets of these agencies should be in the neighborhood of \$300 million to \$400 million annually for each service, and nobody but the people directly in charge should determine precisely what projects should and should not be sponsored. The project-by-project reviewing that now goes on everywhere in the Pentagon should be stopped, and the whole costly apparatus that goes with it junked.

The danger of having so many review echelons as we now have for R&D has been succinctly expressed in terms of private industrial research by C. E. K. Mees of Eastman Kodak: "The best person to decide what research work shall be done is the man who is doing the research. The next best is the head of the department. After that you leave the field of best persons and meet increasingly worse groups. The first of these is the research director, who is probably wrong more than half of the time. Then comes a committee, which is wrong most of the time. Finally there is a committee of company vice presidents, which is wrong all the time."

Progress in Missilery

WILLIAM HOLADAY
Director of Guided Missiles, Department of Defense
Address, Annual Meeting, Chamber of Commerce
28 April 1958

From our austere beginning in missilery—less than fifteen years ago, I am sure you will agree that astounding progress has been made in the short span of years. The progress has not come about by accident or through the leisurely efforts of a few people. To the contrary, it has resulted from the concentrated work of the nation's best scientists and the dedicated efforts of many thousands of Service and industry personnel.

Today, for example, there are more than one hundred thousand people directly involved in our surface-to-surface missile programs. What the number is for all missile pro-

grams, I don't know, but without question it is truly large, especially in comparison with the handful of people so involved ten years ago.

Similarly, the national expenditure for guided missile developments and production has arisen by corresponding leaps and bounds. The total money obligated on missiles during 1947 was \$58 million. The annual obligation had risen to slightly more than \$1 billion in 1952. Five years later, the 1957 figure was \$4.4 billion. The total for 1958 will be something over \$5 billion and the 1959 projection is \$6.4 billion. It is interesting to note that the projected sum for 1959 is more than 100 times as great as it was in 1947.

High Cost of Entry into the Space Age

REP. GEORGE MAHON
Chairman, House Military Appropriations Subcommittee
Address, Annual Meeting, Chamber of Commerce
28 April 1958

If we are to deal effectively with military programs in the space age we must deal within the framework of public opinion. The public opinion pendulum swings back and forth. Last fall nearly everyone seemed to want to spend about \$100 billion more or less, and quickly, in order to repair our damaged world prestige. At this moment—and I emphasize at this moment—our pulse is back to normal. We cannot accept military programs based either on hysteria or complacency. There is a middle road for the long pull which we must somehow find and follow.

The amended defense budget is an approach to the right road. Congress, in the near future, will make some modifications and additions.

There has been a lot of talk about lowering taxes. At the same time many are insisting with considerable logic that we launch a defense program on an appreciably higher financial level than presently contemplated. In effect, that would call for a tax increase, not a tax decrease.

This also ought to be said. If we adequately finance and sustain in succeeding years the defense programs which are now in early or planning stages, hope for substantial tax relief will be dim. I am thinking about such items as the long range ballistic missiles, the anti-ICBM, the Polaris submarine equipped with ballistic missiles, the atomic airplane, military satellites and manned space travel.

We just cannot ignore the vast cost of the defense program. The anti-ballistic missile program is requiring appropriations this calendar year in excess of one-half billion dollars. This is only a beginning of what may rapidly become a \$6 billion effort. It is only one of many programs in the offing which will range in the billion dollar category. Defense in the space age is going to be terrifically expen-

sive. We must keep an eye on space but if we are to succeed and survive we must keep our feet on the ground.

The elements of the present situation sharply emphasize the urgent, and long overdue need, for a reorganization of the Defense Department. The defense spending curve is moving upward. We cannot afford to devote our energies and resources to defense to the point of weakening and destroying the economic system and way of life upon which we depend for our strength to survive. We need changes in command and operational structures. Inefficiency is too expensive to be borne by the taxpayer. Reorganization is one of our best hopes of holding defense spending in bounds while providing adequate security—security that is as adequate as reasonably possible. We live in an age of speed and rapid developments, but we have a cumbersome system which wastes time and discourages action, coordination and efficiency. We have a model-T organization and a space age problem. They are not compatible.

I am pleased that the President has taken a firm stand for reorganization—and reorganization now. Appropriate action is imperative at this session of Congress when we are laying the legislative groundwork for the space age.

Who Should Fix Military Budgets?

COL. WILLIAM R. KINTER
Forging a New Sword
Harper & Brothers, 1958

Since World War II, professional military personnel, and, in fact, the military departments themselves, have been successively down-graded in the Executive Branch hierarchy. This is not to say that the professional military voice is unrepresented in or by the Executive Branch in the councils of government. But, whereas prior to World War II the individual military departments and both their military and civilian leaders had access directly and individually to the President, the Secretary of Defense and a thickening layer of assistants now intervene. While by law the Joint Chiefs of Staff as a body are the military advisers to the President, the Chairman of the Joint Chiefs is in fact the only one of the group who has ready access to him. Hence, since only one civilian head and one military head now represent the military establishment to the President instead of the two from each military department who represented it before and during World War II, the influence of the professional military may be said to have declined, relatively speaking.

The military budget has been an Executive responsibility since the Budget and Accounting Act of 1921. Certain current aspects of budget-making procedures appear to work a disadvantage upon military planning and performance; for the annual preparation of the budget necessitated under present law and practice militates against the type of long-range planning and flexible expenditure of funds which are required to keep our defense forces ahead of, or at least abreast of, any potential major enemy. Moreover, there is an additional phase of budget procedure which appears to vitiate military policy in a substantive manner. In the late 1940's the practice of placing a ceiling on military

budgets was reinstituted. To do so is undeniably a Presidential prerogative. Yet, should the limit imposed by the President be based primarily on the recommendations of his Budget Director or on those of his military advisers, or should it be the result of reconciliation by the President himself of the divergent recommendations of both?

Rediscovered Thousands of Times

JOHN J. PULLEN
The Twentieth Maine
J. B. Lippincott Company, 1957

On one occasion a couple of young lieutenants decided to leave a marching column and take a short-cut across a field. They hadn't gone far before a messenger caught up with them. He had an order from Colonel Ames placing them under arrest and sending them to the rear of the column. Next day one of the lieutenants wished to be relieved from arrest in order to make a trip into a near-by town. All he had to do, he figured, was to write the Colonel a note and get permission. He tore a piece of paper from a pocket notebook, scribbled his request, and sent it off to regimental headquarters by one of the men. Within a surprisingly short time he received in reply a Proper Military Communication. Lieutenant would please understand that officers in arrest got no special favors, and when communicating with these headquarters hereafter, the Lieutenant will use the correct military form and stationery of proper size. Signed, Adelbert Ames, Commanding, 20th Me. Vols. The youngster had made a discovery which has been rediscovered untold thousands of times by defenders of democracy. Namely, that one of the quickest ways to get yourself into serious trouble is to write a letter to your commanding officer in the good old democratic style beginning "Dear Colonel. . . ."

And Mark Him "Duty"

MAJOR ABNER R. SMALL
The Road to Richmond
University of California Press, 1957

The regular prescriptions were numbered six, nine, and eleven, which were blue pill, quinine, and vinum. We soon learned that "vinum" meant either wine or brandy. I have seen men count from right to left, "six, nine, eleven—six, nine, eleven—six, nine, eleven," and step into the line just where "eleven" would strike. It was a sure thing, since the surgeon gave in regular order, as the men filed past him, something as follows:

"Well, what's the matter with you?"

"I don't know, Doctor, I've got an awful pain in my bowels; guess I've got the chronic diarrhoea."

"Let's see your tongue! Give him number six! Next, what's the matter with you?"

"I was took with an awful griping pain in my bowels—guess I've got the chronic diarrhoea."

"Give him number nine! Next, what ails you?"

"I've g-g-got an almighty b-b-bellyache, g-g-guess I've got the chronic d-d-diarrhoea."

"Run out your tongue! Give him number eleven!"

The Officer's Professional Education

COLONEL JOHN D. BYRNE

SINCE 1940, the Army's school system has been preoccupied with training for mobilization, and has achieved what may be described as world-beating results. This accent on training, however, destroyed an earlier liberalism that existed in our schools; a free spirit of inquiry that created a climate in which the Army developed the imaginative talents of hundreds of officers who led our armies to victory in World War II and are largely responsible for the success of our present military alliances, such as NATO.

Today, education is considered a part of training, and the control of what our schools teach rests primarily with the training sections of high-level staffs. As a result, our school thinkers and our staff thinkers have become too closely united in the pursuit of doctrine. This makes it nearly impossible to overcome the faulty reasoning that, since our best officers occupy the key command and staff positions, our present *modus operandi* is the best. New ideas are at least suspect, and may even be considered criticism of superiors.

The civilian professions avoid this dilemma. In medicine, members of the profession are divided by inclination and talent into general practitioners, specialists, teachers, and researchers, which allows a sensible division of labor and also lays down a logical course for a new idea from inception, to test, to application. It is accepted routine for a Salk to discover a vaccine, for a general practitioner to use it, and for the profession as a whole to check the results of its use.

In our way of life it is normal to include a medical college in a large university. More specifically, the university's hospital is a physical symbol of the organization of medical education: practice, teaching, and research are all under one roof.

The Army lacks a parallel system for getting, circulating, and using ideas. This is because there is no clear division between technical training and the broader professional education of the career officer; and because there is no simple organizational arrangement within the Army to serve as a symbol of the more ambitious aims of career education. As I have said, these conditions exist because we have mobilized for, and fought, two major wars since 1940. The

effect has been the loss of a philosophy of teaching to guide the careers of professional officers.

The early corrective steps are easy to outline. First, we can separate professional education from technical training by changing the objectives of only a few of the hundreds of Army school courses. A practical and adequate initial benefit can be gained by reorienting the four courses dealing with the reason for the Army's existence—the conduct of field operations. These four are the Command and General Staff College course and the advanced courses of the Infantry, Armor, and Artillery Schools.

Secondly, some organization in the Army must be a symbol of the professional educational process, much as the university hospital serves as a symbol of medical education. The officers assigned to this organization would be responsible for our educational standard. For example, another mission and an additional faculty group could be given the Army War College, which would then have the two distinct missions of teaching an annual class, and setting standards for officer education in the rest of our schools. This is not to say that the staffs would relinquish control of education. A small education section would be necessary both at CONARC and within the Army Staff.

Let's return to the medical profession to illustrate an important point in connection with preserving professional standards. The fact that a medical college is part of a university enables doctors to exchange ideas with groups like biologists, chemists, and engineers. Any profession which does not participate in this sort of exchange must inevitably suffer, and the military is no exception. A primary function of that part of the Army War College concerned with professional standards, therefore, would be to actively exchange ideas and people with military and civilian institutions.

The importance of this exchange cannot be overemphasized. The universities are as much a national institution as our courts and legislatures, and are perhaps more vital to the continued existence of our society. At this time, when the United States makes strategic decisions several times a year that are big enough and apparent enough to be reflected in the stock market, the military profession must, as a matter of duty, contribute to the search for knowledge in the universities.

Most professional of all professions

After the Army has taken these two steps, we can pro-

Colonel John D. Byrne, *Artillery*, is a frequent contributor to *Army*. After a tour in the Pentagon, he is presently under orders for MAAG, Spain.

ceed to evolve a philosophy of teaching. I do not pretend to be an authority in this field. I can only assert that we must seek the advice of professional civilian educators, for I think teaching is the most professional of all the professions. Most important, the teaching profession is the guardian of academic freedom, the source of all our freedoms. The Declaration of Independence could not have been written during a time of trial unless someone had earlier been free to conceive and to express its ideas. The vitality of the Army's school system can be no greater or no less than the understanding of academic freedom that permeates it.

We like to boast of the efficiency of our Army's school system in attaining concrete training objectives; on the other hand, we are slightly intolerant of the struggles of civilian schools with their more complex problems. In fact, we realize too little the general truth that the American soldier can be trained more rapidly than any other because civilian educators have done a good job on his primary learning.

Here we have a secret weapon: each officer is first an American citizen, secondarily an American soldier. At one time or another he has been under the influence of civilian educators. If our officer schooling abandons its self-imposed role of training and adopts an educational mission, the change will be understood, and will be immediately reflected in the thinking of our officers. In other words, reform in our military education is not merely an administrative arrangement; it is also a self-generative process that in one or two years can improve the outlook and professional attainments of the officer corps.

Teach the officer to educate himself

Specifically, we must free the teaching of the military general practitioner from the pressure and hurry of present methods. Our school atmosphere is still too much one of getting an untrained officer ready for immediate battle, when it should be aimed at broadly qualifying him to execute strategies yet to be formulated. We must reduce detailed presentations that imprison him in the lecture hall for long hours and cram into him facts that must escape from his head rather quickly to make room for others. Rather, we must adopt the basic trick of the college faculty: use the instruction period to point out how the student can learn more about the subject. This is meant to breed self-reliance, as opposed to reliance on the system.

To accomplish this, we must adopt for career education a shorter classroom day. A workable general rule would be to complete formal classes by noon, thus freeing students for the rest of the day to educate themselves and one another. After all, a man learns his most important lessons from his peers.

Much time and labor would be saved by changing the method of describing courses. The detailed program outlining each instructional hour could be abandoned in favor of a brief of the type used by colleges and universities. These briefings could be very speedily approved at various command levels, thus affording the faculty greater flexibility in arranging day-to-day instruction.

Concern over class rank

The Army is overly concerned with giving each student a relative ranking in his advanced course and staff college class. This is harmful and dangerous, because it forces the



Entrance to Grant Hall of the CGS College

school to subject all students to the same schedule, and because it imposes the necessity of grading too many of the problems presented to students. Class-ranking of mature professional men begets concern with grades, to the detriment of learning. It also causes the faculty to base grades on some standard of instruction and test, hence entangling instructors and students alike in the great debate over the school solution.

If we are to get new ideas from our officer corps, students in our schools must be turned loose individually and in groups outside the limits of course outlines. Men with special experience or talent must be given advanced courses. Nor does it matter if a student is placed initially in the wrong group: once the class-ranking bugbear is removed, individual transfers between groups can be made at any time by the school faculty with no permanent injury to the student's career.

The Army's youth, which must be its source of inspiration, must be freed from mechanical competition and debate, and asked to contribute its fire and imagination to military progress.

A look at the leaders in any field shows that it would be catastrophic if mankind were denied the talents of the exceptional person, especially the young—that is, those between twenty-five and thirty-five. You may rightly say we must not aim our school system at the genius, but our school system must allow each man to rise to his full potential, even if he is a genius.

This in no way inhibits the practical man, for he cannot be an up-to-date practitioner unless he rubs elbows with teachers and researchers, and examines the nature of the theoretical problem he must translate into practical terms. We can do this only by abolishing class rank, thus relieving the practical man of the fear that while at school he must equal or surpass the academic genius.

And we can help ourselves to live with that ever-present necessity of a military force—absolute command authority. Once we abandon class rank, we abandon a lesson that we are today teaching by implication: that the leader should also be the smartest man in his unit.

No academic revolution needed

By making the Army War College a clearing house for research activities, and the guardian of the excellence of our teaching, we shall have equipped it very well to set the general-course content for professional education. We do not need an academic revolution; we need only reduce the emphasis on specialized training in a school system that is now truly wonderful. As we have noted, a practical and adequate initial benefit could be derived by reorienting the Command and General Staff College and the advanced courses of the Infantry, Armor, and Artillery Schools.

The present specialized advanced courses for Infantry, Armor, and Artillery could be easily replaced by one advanced course for the combat arms. The underlying idea is simple: our present method of training an officer in one arm is obsolete. The theory that he cannot be asked to learn more is refuted the moment we look outside our own field. Consider, for example, the knowledge that the Navy demands of a carrier pilot. Very little change is necessary, because the advanced courses of the arms and services pursue the same general subjects, with the addition of a relatively small amount of branch specialization. The technical and administrative services, to be sure, have problems that are much more complex. But reform of these services is almost impossible to discuss until a basic pattern has been agreed on for the combat arms.

The professionals now take an advanced course of their arm in their late twenties. By then they have had basic branch schooling and practical troop experience. Yet these captains and lieutenants are at the period in life when they must be educated to become field officers. The proposed advanced course would teach officers of combat branches the battlefield use of the combined-arms team and, of course, how a division staff operates. At first, the schools of the technical and administrative services can be left alone. Each of these services can draw upon the educational force of a civilian profession, hence is less trapped by the training lid now clamped upon Army education as a whole. Besides, since these services consider themselves in support of the combat arms, any changes in their educational systems come about only after changes in the combat arms. The Corps of Engineers and the Signal Corps, however, are combat arms as well as technical services. The new and combined advanced course for the combat-arms officer therefore would have to include a heavy portion of engineer and signal instruction.

Some of the detail dropped from the present branch courses would have to be taught in specialist courses. In those for field artillery, for example, it would be necessary to have short (probably three-month) courses for battalion gunnery officers. This would be in line with what we have been doing for years. Even though every artillery officer is, technically speaking, trained as a battalion S3, why not admit that we use only the best qualified, and conduct our schooling accordingly? Basic gunnery instruction reveals the good shots among second lieutenants: they can be selected for later training as gunnery specialists.

**Figure 1. Combat Arms Course
For Army Field Officers**

INTELLIGENCE (Two Weeks)	Orientation; the international situation; characteristics of foreign armed forces; review of geography.
ATOMIC WARFARE (Two Weeks)	Principles; methods of damage control.
LOGISTICS (Four Weeks)	Application of current logistical doctrine in planning support for specific combat situations.
SURVEYS, MAPS AND PHOTOS (Two Weeks)	Basic military survey; map and aerial photograph reading; principles and accuracies of guided missile surveys.
GUNNERY (Eight Weeks)	Characteristics and methods of employment of Army weapons and ammunition. Techniques of fire direction, and of conduct of direct and indirect fire.
COMMUNICATIONS (Two Weeks)	Divisional communications equipment system, procedures, and security.
MATÉRIEL (Four Weeks)	Characteristics, use, and maintenance of Army matériel. Transportability and mobility by land, sea, and air.
GENERAL STAFF (Four Weeks)	Organization, duties, and techniques of the division staff.
ARMY AVIATION (Two Weeks)	Theory of Army aviation; skills of performing tactical reconnaissance by air.
TACTICS (Eight Weeks)	Principles and methods of employment of the combined arms team at company, battalion, and regimental level.
CPX AND FIELD EXERCISE (Two Weeks)	As desired.

We select an equally important artilleryman—the battalion communications officer—and school him as a specialist.

Branch specialists not the goal

My point is that we should not set branch specialization as the intellectual goal of the young officer. The branch advanced course should embrace all the combat arms, as well as the organization and techniques of the division staff. That is the course I suggest in Figure 1. As its title indicates, lieutenants and captains of combat arms would be educated for the roles of field officers on the division's staff and in its tactical units.

After further staff and troop experience, this professional reports to Leavenworth for his second tour of postgraduate study, when he is about thirty-five. We must assume that by now he is grounded in the basics of his profession, and ready to learn how the Army implements military and foreign policy. At first glance, the course outlined in Figure 2 may look like a War College program. The plan is to have these topics studied on (1) the level of grand tactics and field logistics, or the CGSC level of organizing, equipping, transporting, deploying, and maneuvering task forces

and battle groups, and (2) the level of national strategy, or the Army War College level of providing for forces in the national economy and budget, and connecting them to the implementation of national policy.

If strategy is to be meaningful, our officer education must be so realistic that our actual plans are being subjected to continuous testing by our schools. First, the tactical use of men, weapons and equipment must be studied by those who will have to do the fighting. Second—and at the same level—logistics experts must study the combat problem in terms of tonnages, pipelines, men, equipment and dollars.

It should therefore be desirable for the CGSC class taking the course I propose in Figure 2 to be divided into a tactics group and a logistics group. In my opinion, this is necessary because of the recognized pressing need for more thorough study of Army logistics. If the Leavenworth class is not divided, the only practical alternative is a separate logistics college. If this happens, the formulation of strategy will be very difficult if not impossible because two naturally opposed schools will have been created in place of the one that should do the job.

Third, Army War College students must study how the possibilities explored at the Leavenworth level affect our society. Can the forces be paid for? Do they fit our political system? In other words, the study of grand tactics and

logistics at Leavenworth should provide a base for the study of national objectives and strategy at the War College.

At the Leavenworth level, therefore, the second post-graduate year must be as realistic as possible. Problems and war games must deploy actual present-day units over existing logistical systems to specific areas in order to meet the recent or current situation. If security problems arise, we can pick a place whose harbor and time-and-space factors equal those in the area involved. There are many places we can study so that no malicious intent would be inferred. If we can fly bombers around the Soviet Union, must we hesitate to maneuver paper divisions over a map of Egypt?

The immediate difficulty of providing such realistic teaching is a general ignorance of logistics: each technical and administrative service deals with its own portion of logistics in support of combat arms, whose officers in general do not know enough about it. That may sound like a wild charge, but the disbelieving reader would do well to inquire of Navy colleagues. The Navy can tell you what supplies are necessary to maintain a ship or an airplane stationed anywhere in the world, and what logistical effort is required to transport those supplies to it. My concern, therefore, is that the Army's combat-arms officer is taught only a relatively small portion of his professional problem, which is how to maneuver the force tab after it has been placed overseas. Even here, he is taught the use of the ideal force tab and of the running river of supply from the zone of the interior.

To cry that these educational goals are too ambitious for the Army's school system is to pass the job along to the division commander in the field, or to the staff section chief in the Pentagon. The division commander has his hands full trying to weld together a force from what pours out of the pipe; the Pentagon chief tries to get out something or other for tomorrow's deadline. If there is slack time anywhere, it is in the schools, where we are becoming more and more expert in the techniques of leading that Vanishing American, the combat soldier.

Needed: A philosophy of teaching

We must evolve a philosophy of teaching that enables both faculty and student to express any theory upon which future strategy can be based. Teachers and researchers must be sought out in the officer corps and rotated through the faculties. Unlike other professions, the Army cannot keep its teachers and researchers permanently at schools, for the simple reason that the military profession cannot be practiced indoors, and military idea-men must have a combination of field and academic experience.

The Army has to build up a proportionately larger body of schoolmen than do other professions, and therefore must accelerate its search for talent. The American model is Admiral Mahan, who provided the teaching and the doctrine that gave birth to both our modern concept of seapower and our present-day navy.

The Army's schools are its only hope. The combat soldier is the Vanishing American mainly because he expects his people to remember that the man with the rifle has always been their primary instrument of victory, from Bunker Hill to Pork Chop. In our day of high-pressure advertising, super-weapons, and imagination-staggering logistics, such a realization in the public memory is not only unlikely, it is impossible.

Figure 2. Basic Course, College of Grand Tactics and Logistics

FORMULATION OF NATIONAL POLICY (Four Weeks)	How the U. S. Government works, with emphasis on foreign affairs.
INTELLIGENCE (Two Weeks)	The international situation; characteristics of foreign armed forces.
ROLES AND MISSIONS, DEPT. OF DEFENSE (Two Weeks)	Organization, roles and missions of the Army, Navy, Air Force, and Department of Defense.
U. S. NAVY AND U. S. AIR FORCE (One Week)	Nature of naval forces and operations; nature of air forces and operations.
AMERICAN MILITARY GEOGRAPHY (Four Weeks)	The specific relationship between geography and U. S. military affairs.
LOGISTICS	
a. National Defense Budget (Four Weeks)	How the national defense budget is written.
b. Global (Four Weeks)	How U. S. military might is deployed on a global scale.
c. Theater of Operations (Four Weeks)	Build-up, resupply and redeployment of forces in an active theater.
GRAND TACTICS	
a. General War (Four Weeks)	Mobilization and employment of U. S. Army in general war.
b. Limited War (Six Weeks)	Employment of U. S. Army in conceivable limited war situations; world-wide.
WAR GAMES (Four Weeks)	War gaming of student solutions to grand tactics problems.

THE MONTH'S CEREBRATIONS

DON'T FEAR YOUR UER

W. P. MCGOVERN

In the Army there exists a belief that you must never render an unsatisfactory equipment report (UER) on anything unless what has happened is so awful that *not* to report it higher up will place you in future danger of life, limb, or low efficiency rating. Accompanying this thought is the idea that if you do file one, it will certainly be killed at regiment or division, because to forward it through channels implies criticism of the responsible technical service, or worse, the person who was using the equipment at the time. Such attitudes do not encourage the preparation of UERs. Another cause of the dearth of these reports is the feeling on the part of officers and enlisted men that even if it is forwarded after you have gone to the trouble of filling out the form, years will elapse before anything is done about your complaint. What's the use?

Both attitudes may have some basis in fact, but deep down in your heart you know there is much to be said for the other side. Let's look at this thing from another viewpoint.

You come home some afternoon and find the wife sitting dejectedly beside a pile of laundry and staring at an all-too-quiet washing machine. She tells you that all of a sudden it gave forth a loud groan and died.

Had it been giving trouble? Oh yes, making strange noises for weeks. Why wasn't I told?

One moment, friend. Aren't you the bird who that same morning didn't make out a UER regarding a parachute ground disconnect that failed to work and dragged an aerial delivery load halfway across the drop zone? Your wife was careless too, and now, instead of a minor service charge, you face a big bill for a new widget.

The moral should be quite plain.

Any article the Army issues is supposed to be as perfect as brains and money can make it. Any honest R&D engineer will tell you that this is not

always so, although that is his goal. Talk to him some more and he'll complain a little about the lack of reports from the field on the behavior of the equipment he devises. Sure, everything gets engineering and service tests. Some articles even get extensive troop tests before they are adopted as standard. Nothing beats the experience of actual use. Examples abound in private industry where products that are thoroughly engineered, extensively tested, and carefully assembled before distribution to the market, undergo important changes after a few months because users found some feature unsatisfactory. How did the manufacturer learn about this? Why, the customers squawked, loud and long!

Remember that unless the developing agency gets complaints about its products, it assumes that things are all right. The only sure and efficient way to get a hearing for your complaint is through the unsatisfactory equipment report. Don't depend on the casual comment to division G4, so well received at the club bar and promised swift action next day when he is back amid the urgencies of his daily routine. If he remembers your beef at all, he is likely to conclude that if you're so damned upset about your lousy equipment, you'd come through channels without expecting *him* to complain to technical service headquarters. Have a heart for your friends at headquarters and remember that all the griping in

the world will be just so much jazz until you make out that unsatisfactory equipment report.

If you're convinced by now, remember another very important thing. Detailing your complaint on the UER form will force you to get the facts—and only the facts—straight. Let's go back to your wife's busted washing machine.

Handled in the approved military fashion (not recommended for most wives), your procedure would go somewhat like this: (1) You will be immediately informed by wife when any strange noise emanates from household equipment. (2) Upon report of strange noise, question wife to ascertain whether proper maintenance procedures are being followed. (3) If they are, ask her to describe noises; you will attempt to ascertain cause, and remedy same. (4) If cause cannot be discovered, call serviceman.

In other words, the mere fact that the dissatisfied user has to take time to prepare his UER forces him to do certain things. He must be sure he was using the equipment properly in the first place. He must be sure that the fault is not due to an extraneous cause—unusual weather conditions, bad power connection, or the like. He must describe the difficulty in terms that present a clear and complete picture of the equipment's faulty design or operation.

What happens to the UER after it leaves your desk? Ground rules may differ, but usually it is bucked through channels to the tech service responsible for the article at your installation. Within that service, it normally ends up with the R&D agency that first designed the gadget. Here the UER has a double value: It reaches the person who can best solve your problem, which is to your advantage. He can use your comments, together with others on the same article, to help him design an improvement if that proves necessary. The answer to your UER may come in either or both of these

This department is designed to accommodate the short, pithy and good humored expression of ideas—radical and reactionary, new and old. We pay for all contributions published but you deserve to be put on notice that the rate of payment depends upon the originality of the subject and the quality of writing rather than length. This department is hungry for contributions, so shoot that good idea in . . . today.

ways. The best way, of course, from your viewpoint as the user, is a quick and simple fix. So often the drilling of a hole, the replacement of one bolt by one of a different size, a slight change in lubrication procedure, can transform a bucket of bolts into a smoothly running piece of machinery. Don't be diffident if the solution to your big difficulty entails only a ten-cent repair. Haven't the popular mechanical and engineering magazines been printing kinks like this for years without hurting anyone's feelings?

From the point of view of the developing agency, however, the second advantage of the properly prepared UER has the most value as a firm basis for developing a new article. A big thorn in the side of the R&D man is Joe Ducrot, the visiting fireman, who arrives all big and shiny from the field with the horrible news that the Umpty-umph Division is having one helluva time with *your* mop, floor, one-man. Hundreds piled up on the salvage heap! Colonel Blimp said he had to go out on local purchase to replace them. The men won't use 'em, and so on, *ad infinitum* and *ad nauseam*. The R&D man asks what percentage of mops in the division are defective. (No answer.) How long have they been in use? (Blank stare.) How many are be-

ing *misused*—say, as tent poles? (Sarcastic snort!) Has the Division kept authorized stocks on hand? (Well, I didn't get the facts; Colonel Blimp was pretty busy at the time. Now I want to tell you about another of your items. . . .) Finally Ducrot departs for his mop-less (?) post, leaving behind a trail of guesses, innuendoes, and half-truths. The R&D fellow digs in the files for evidence that mop, floor, one-man, isn't all it's cracked up to be. He asks his colleagues. He phones a friend at another post to ask if he has had any bad experience with this mop. He even asks his wife how her mop is doing (and wishes he hadn't). He draws a blank each time. So far as anyone knows, the Army's mops are fine, wearing out somewhat in direct proportion to the square footage of area mopped and number of times used. After a few weeks his R&D boss asks what's with all this mop talk and what is its connection with programmed work? He concludes it was just a waste of time.

Now if there *had* been a mop problem, what a difference it would have made had Colonel Blimp filed a UER. He would have had to state the number that failed, wear-out experience, specific faults in design, and his recommended remedies. Maybe he did get

some bad mops, or perhaps his are used a little more than is normal. At any rate, the developing agency would have had something tangible to work from. Detailed facts and figures from one post could have been compared with similar data from others. Samples could have been examined for design or manufacturing faults. Perhaps a remedy could have been immediately forwarded to the user. Or maybe another latrine rumor could have been knocked in the head.

Let's abandon our negative attitude toward the UER and instead treat it as a means of making absolutely sure that the U. S. Army gets the best equipment in the world. Don't accept complaints about equipment under your control without checking them. Impress upon everyone in your unit that you don't consider UER a dirty term, and that you will act when they are properly prepared. For a change, let's give The System a chance to help us.

W. P. McGovern has been an Army employee since 1951, first at the Quartermaster Center at Fort Lee, now as an equipment specialist (aerial delivery) at the QM Research & Engineering Command at Natick, Mass.

"RENDER UNTO CAESAR"

CAPTAIN DAVID H. HUNTER

WITH the new military pay bill and its authorization for the creation of two new enlisted pay grades seemingly assured, this would seem to be the psychological moment to elevate the waning prestige and morale of our non-commissioned officer corps.

Some comments frequently heard among commissioned and noncommissioned soldiers are:

"There are so damn many stripes nowadays they don't mean anything."

"How come Navy chiefs have so much prestige while Army master sergeants are just another grade?"

"In the 'old Army' a buck sergeant was really somebody."

"Hey, I saw a real live corporal the other day."

I suggest that there are definite positive actions which can be taken to

eliminate the causes of such remarks as these.

Now is a good time, the *best* time, to revert to the traditional insignia of the noncommissioned leader worn prior to and during World War II. Namely: three up and three down for the top (E-9) and so on, down to and including one chevron for the E-4, with titles to match the stripes; that is, Master Sergeant, Technical Sergeant, Staff Sergeant, Sergeant, Corporal, and Private First Class. What do we do with E-1, -2 and -3? Call them Privates and use the Navy insignia system for these pay grades.

To prevent the overloading of TOEs and TDs with the new grades of E-8 and E-9, as well as E-7, which would leave us practically right back where we started, require that non-commissioned officers, as opposed to specialists, holding the grades of 7 through 9, have supervision or command of a minimum of four subordi-

nates of the *next lower* pay grade. This would fit in nicely with the noncommissioned officer structure of the Infantry rifle company; First Sergeant E-8, Platoon Sergeants E-7, and so on. If a similar command structure does not exist, and it is deemed necessary to pay E-7, -8 or -9 wages to a man whose skills or other responsibility warrant such compensation, he should either be designated a specialist, or if retained in noncommissioned officer status, be authorized proficiency pay. Keep the stripes, privileges and prestige where they belong; with the leaders.

Treat the senior noncommissioned officers (7, 8, and 9) as *seniors*. Give them quarters, messes, clubs and uniforms comparable to those of the Navy chief petty officers; and, most of all, give them the responsibility and authority commensurate with their experience and their pay. Commanding officers must have guts enough to keep a loose hand on the reins and to back

up their noncommissioned officers. Which brings us to the final point:

Company level commanders must be given the authority to make and break those for whom they are responsible, "for all they do or fail to do." To compromise with the necessity for career security and with Department of the Army grade allocations, this authority could be restricted to position vacancies in enlisted grades 1 through 6 with

provision made for appeal to higher authority to minimize unjustified reductions. Such a system would provide early and concrete recognition for the capable noncommissioned officer, and would serve to decrease the feeling of career security *only* in the substandard individual.

None of these proposals is new or radical and identical procedures have proven effective in the past. They are

designed to recognize quality and ability in noncommissioned officers. You don't get quality unless you recognize it.

Captain David H. Hunter, Infantry, enlisted in 1945, was commissioned in 1946, and integrated into the Regular Army in 1951. He is assigned to the USA Command, Reconnaissance Activity, Pacific.

PUSH THE CHAIN OF COMMAND ALL THE WAY DOWN

COLONEL JOHN D. COLE

Recently, a great deal of space in the pages of ARMY has been devoted to reciting the vicissitudes of troop duty and the trials and tribulations of the poor downtrodden commander. To someone not familiar with the real situation, it might well appear that we are rapidly becoming an Army of staff officers. Lieutenant Colonel Hobrecht's "Minority Report on Command Duty" (ARMY, Feb. 1958) was indeed a breath of fresh air to me, since in my book an officer who does not like and actively seek troop duty has simply chosen the wrong profession.

The majority of these commanders' woes stem from their failure to carry out one very simple principle. It is my purpose to explain this principle, a very basic system whereby a commander can produce a well-trained unit and can even make a creditable showing in the never-ending battle of statistics.

In all too many places there is a reluctance to push authority and responsibility all the way down to the lowest echelon. The squad, section, or platoon leader may have something to do with training, but all too often his responsibility stops right there, and all the

other elements by which we judge commanders remain firmly in the lap of the company or battery commander.

How often does anyone comment on the reenlistment program of a platoon or the savings performance of a squad? Who catches it when a section vehicle shows up poorly on a spot check inspection? For whom does the driver of that vehicle really work and to whom is he directly responsible? I suggest that too many times it is the battery motors sergeant and not the section leader. A case that occurred recently in my own unit will illustrate the point. A squad leader actually complained to an inspector general that he was being held responsible for the conduct of his men during off-duty hours! Naturally he got very short shrift, but the point is clear. We hold commanders responsible for everything their units do or fail to do (so we say) but which commanders? Isn't the performance, statistical or otherwise, of a battalion made up of the performances of its platoons and squads? If a company commander is to be judged, at least in part, on his AWOL and deadline rates, certainly he can and should hold his own subordinate leaders responsible, but how often is it done? Yet these

subordinate leaders are the people who by personal contact and personal leadership can really do something about it.

In the final analysis, the business of a peacetime army is to train the leaders that we will need in war. How else can we do this except to *make* them lead, to insist that *all* command functions are assumed by all commanders?

We waste a great deal of time and energy complaining about the lack of good noncommissioned officers. Perhaps, if we gave them their own units to command, backed them to the hilt, and then held them strictly responsible, we would have more good ones. To be sure, some of them would make mistakes, frequently to the embarrassment and chagrin of their bosses, but this is part of the process of learning. A leader who never makes a mistake never learns anything, and, even more important, never gets anything done.

Push your chain of command all the way down. It will pay off in better statistics, better leaders, better units and a better Army.

Col. John D. Cole, Corps of Engineers, after a tour as Chief of Staff, 10th Infantry Division, now commands the 37th Engineer Group (Combat).

MISPLACED EMPHASIS

CAPTAIN RONALD J. ROGERS

A recent issue of *Leatherneck* printed an article which described the style of fatigue cap worn in the Marine Corps. It compared their cap to the smartly blocked fatigue cap worn by the Army and asked for improvement of the Marine fatigue cap along the same lines.

At the time, I was stationed at a post

which had a number of Marine officers and enlisted men on duty. The article focused my attention not only on the Marines' fatigue cap but on their uniforms in general. The Marines wear the fatigue uniform as a fatigue uniform. They do not try to make a class A uniform out of it. It is purely and simply a work uniform. On the other hand, their class A uniform looks as it should: in a word, sharp.

I believe we in the Army have placed too much emphasis on the wrong uniform. In some organizations the fatigue uniform has been altered so that it only remotely resembles the uniform as originally manufactured (according to government specification). I agree wholeheartedly that we should look sharp at the proper time, but the fatigue uniform is not a ceremonial uniform. It was designed by

the Quartermaster Corps as a comfortable uniform for training and work, which would save wear and tear on the class A uniform. Many organizations require not only the addition of cuffs and epaulets to the fatigue jacket, but form-fit tailoring. Such alterations considerably reduce the comfort of the uniform and are quite expensive.

The capper is the wearing of the scarf with fatigues. Scarfs serve two purposes, warmth and dress. It would seem that the branch color scarf is designed for the latter since a shade 44 scarf has been authorized for wear with the overcoat.

A branch color scarf is as out of place with a fatigue uniform as a homburg with overalls.

While we have literally knocked ourselves out trying to make the fatigue

uniform look sharp, what have we done about the class A uniform? Little or nothing. Nowhere near enough stress has been placed on the correct fit and wearing of the class A uniform. I have seen units which actually looked better in fatigues than in class A uniforms. This is unfortunate because the soldier advertises the Army every time he steps out in public, and we don't often step out in public in fatigues.

I would be the last to advocate wearing dirty, unpressed fatigues. A soldier should look well in all his uniforms. I do say that the fatigue uniform should be worn without alterations or additions and that greater emphasis should be put on the proper wearing of the class A uniform.

Proper wearing of the uniform covers more than fitting and pressing,

and the shining of brass and shoes. It includes the proper wearing of the cap, the proper tie knot, the use of collar stays, the dress-off of a shirt, and the correct placing of decorations and insignia. Too many of our men don't know how to wear the uniform properly, a fundamental of soldiering. This is where we are slipping up and it is about time that we put the emphasis where it belongs.

Capt. Ronald J. Rogers, Infantry, served as a platoon leader with the 3d Infantry at Fort Myer, Va., as a platoon leader and company commander with the 7th Infantry in Korea, 1952-53, qualified as an Army aviator in 1956, and served as a combat support flight commander with the 3d Infantry Division.

1958 REUNIONS

1st Armd Div. 22-23 Aug, Kentucky Hotel, Louisville, Ky. Write Col. L. B. Conner, 1529 18th St, NW, Washington 6, DC.
1st Cav Div. 29 Aug-1 Sep, El Cortez Hotel, El Paso, Tex. Write Col. E. P. Stone, Box 201, Pomona, Calif.
1st Inf Div. 3-6 July, Hotel Statler, Los Angeles, Calif. Write Arthur L. Chaitt, 5309 Germantown Ave, Philadelphia 42, Pa.
2d Armd Div. 1-2 Sep, Cincinnati, Ohio. Write Col. R. F. Perry, Box 172, Alexandria, Va.
2d Inf Div. 31 July-2 Aug, Congress Hotel, Chicago, Ill. Write Col. C. J. Hirschfelder, 214 W. Agarita, San Antonio, Tex.
3d Armd Div. 24-26 July, Waldorf-Astoria Hotel, New York City. Write Paul W. Corrigan, 80 Federal St, Boston 10, Mass.
3d Inf Div. 11-13 July, Olympic Hotel, Seattle, Wash. Write Harry Cedar, 1129 Warner Bldg, Washington 4, DC.
4th Armd Div. 10-12 July, Hotel Statler, Buffalo, NY. Write A. J. Passanante, Box 42, Kearny, NJ.
4th Inf Div. 31 July-2 Aug, Henry Hudson Hotel, New York City. Write Iz Goldstein, 1276 E. 54th St, Brooklyn, NY.
5th Armd Div. 14-16 Aug, Hotel Roosevelt, New York City. Write Mrs. Clair E. Watrous, 8549 Lowell St, St. Louis 15, Mo.
5th Inf Div. 31 Aug-2 Sep, Henry Hudson Hotel, New York City. Write Lloyd A. Rader, 451 E. Clay Ave, Roselle Park, NJ.
6th Armd Div. 28-31 Aug, Hotel Roosevelt, New York City. Write Edward F. Reed, Box 492, Louisville 1, Ky.
6th Inf Div. 5-7 Aug, Denver, Colo. Write James E. Wittstruck, 4201 B St, Lincoln 10, Neb.
7th Armd Div. 15-17 Aug, Penn Sheraton Hotel, Pittsburgh, Pa. Write Johnnie Walker, 375 Valley Road, Hawthorn, NJ.
8th Armd Div. 4-6 July, Park Sheraton Hotel, New York City. Write Henry B. Rothenberg, 134 N. LaSalle St, Chicago 2, Ill.
9th Inf Div. 31 July-2 Aug, Deshler-Wallace Hotel, Columbus, Ohio. Write Stanley Cohen, Box 66, Livingston, NJ.
10th Armd Div. 30 Aug-1 Sep, Hotel Statler, Boston, Mass. Write J. Edwin Grace, 108 Langdon Ave, Watertown 72, Mass.
11th Armd Div. 14-17 Aug, Hotel Lowry, St. Paul, Minn. Write Harry Walsh, 475 Cedar St, St. Paul 2, Minn.
12th Armd Div. 31 July-2 Aug, Sheraton-McAlpin Hotel New York City. Write Lawrence E. Mintz, 4310 W. Buena Vista Ave, Detroit 38, Mich.
16th Armd Div. 8-10 Aug, Hotel Sherman, Chicago, Ill. Write James E. Austin, 100 Dee Drive, Linwood, NJ.
24th Inf Div. 15-17 Aug, Chicago, Ill. Write Edmund F. Henry, 402 First National Bank Bldg, Attleboro, Mass.
25th Inf Div. 25-27 July, Hotel Statler, Buffalo, NY. Write Lt. Col. Edward J. Callahan, Box 101, Arlington 1, Va.
26th Inf Div. 19-22 June, Roger Smith Hotel, Stamford, Conn. Write H. Guy Watts, 200 Huntington Ave, Boston, Mass.
30th Inf Div. 9-11 July, Sheraton-Park Hotel, Washington, DC. Write Maj. Saul Solow, 42 Parkway Drive, Hicksville, NY.
31st Inf Div. 1-3 Sep, Morrison Hotel, Chicago, Ill. Write Walter A. Anderson, 4913 N. Hermitage Ave, Chicago 40, Ill.
33d Inf Div. 13-14 June, Morrison Hotel, Chicago, Ill. Write

George D. Radcliffe, Room 508, 79 W. Madison St, Chicago 2, Ill.
36th Inf Div. 29-31 Aug, Hotel Texas, Fort Worth, Tex. Write CWO Archie H. McDugal, 523 Franklin Ave, Waco, Tex.
37th Inf Div. 29 Aug-1 Sep, Deshler-Hilton Hotel, Columbus, Ohio. Write Jack R. McGuire, Room 1101, 21 W. Broad St, Columbus 15, Ohio.
41st Inf Div. 18-19 July, Hotel Multonomah, Portland, Ore. Write Don Cunningham, 526 NW Broadway, Portland 9, Ore.
42d Inf Div. 12-14 July, Deshler-Hilton Hotel, Columbus, Ohio. Write R. Allen Gibbons, Box 342, Roanoke 3, Va.
45th Inf Div. 17-19 Oct, National Guard Armory, Oklahoma City, Okla. Write Richard M. Thomason, 2205 N. Central, Oklahoma City 5, Okla.
63d Inf Div. 1-3 Aug, Hotel Statler, Detroit Mich. Write Robert C. Capasso, 34 Lincoln St, Norwood, Mass.
69th Inf Div. 22-24 Aug, Waldorf-Astoria Hotel, New York City. Write Irving Botkin, 278 First Ave, New York 9, NY.
76th Inf Div. 15 June, Commodore Hotel, New York City. Write Maj. Gen. Henry C. Evans, 6 S. Calvert St, Baltimore 2, Md.
80th Inf Div. 6-9 Aug, Hotel Kavanaugh, Harrisonburg, Va. Write M. H. Levine, 205 House Bldg, Pittsburgh 22, Pa.
82d Abn Div. 3-5 July, Hotel Statler, New York City. Write Carl A. Helgren, 3968 Katherine Ave, Dearborn, Mich.
83d Inf Div. 21-23 Aug, Biltmore Hotel, Dayton, Ohio. Write George Cooley, 1459 Beechwood St NE, Warren, Ohio.
84th Inf Div. Aug, Miami, Fla. Write Lee C. Allen, 3815 Westview NW, Canton, Ohio.
86th Inf Div. 30 Aug-1 Sep, Hotel Seelbach, Louisville, Ky. Write James B. Dickerson, 1049 Park Ave, Paducah, Ky.
88th Inf Div. 13-16 Aug, Penn Sheraton Hotel, Pittsburgh, Pa. Write Sidney Heyman, 2017 Forest Dale Drive, Silver Spring, Md.
90th Inf Div. 7-9 Nov, Oklahoma City, Okla. Write Samuel W. Fry, Tulsa County Courthouse, Tulsa, Okla.
94th Inf Div. 17-20 July, Hotel Manger, Cleveland, Ohio. Write A. E. Rodriguez, 1417 W. Addison, Chicago 13, Ill.
99th Inf Div. 18-20 July, Sheraton-Mayflower Hotel, Akron, Ohio. Write John E. Cummings, 3022 W. Cary St, Richmond, Va.
101st Abn Div. 15-16 Aug, Sheraton-Gibson Hotel, Cincinnati, Ohio. Write Col. L. B. Conner, 1529 18th St NW, Washington 6, DC.
102d Inf Div. 13-20 July, Ambassador Hotel, Atlantic City, NJ. Write Lewis E. Bragke, 8120 Grayfield, Dearborn, Mich.
104th Inf Div. 30 Aug-1 Sep, Schroeder Hotel, Milwaukee, Wis. Write Howard S. Bedney, 695 Hewlett St, Franklin Square, NY.
106th Inf Div. 25-27 July, Bellevue-Stratford Hotel, Philadelphia, Pa. Write John I. Gallagher, 4003 Frances St, Temple, Pa.

Irons in the Fire

Mule's Big Brother

A big brother to the half-ton Mechanical Mule is being tested by Willys Motors, Inc. The new three-quarter-ton vehicle has six seats as opposed to the Mule's one. All but the driver's seat fold flush into the platform bed, allowing speedy conversion from a personnel carrier to a truck with nearly fifty square feet of cargo space. Its load capacity is equal to its own weight, 1,500 pounds, giving it the highest load ratio to total weight of any tactical vehicle in the same weight class.

The new carrier can travel on or off the road, it has a top speed of sixty miles per hour, and like the Mechanical Mule can be adapted to a multitude of roles such as weapons carrier, recoilless rifle mount, communica-



The Willys convertible carrier

tions equipment carrier, ambulance and many others. Powered by a new Willys four-cylinder, horizontally opposed, 164 cubic-inch air-cooled engine mounted beneath the carrier bed, it has selective two- or four-wheel steering, four-wheel drive, and can climb sixty per cent grades. Because of its configuration and light weight it can easily be made floatable and provision has been made for a propeller to be operated by rear-power-take-off, allowing powered crossing of water obstacles. The as-yet unnamed carrier is air-droppable and requires only 115 cubic feet of space in an aircraft, two of them being stowable in less than the space needed for one standard jeep.

Wanigans on Trial

A new family of wanigans, or sled-mounted shelters for frigid climates, are being tested on the Greenland icecap by the Engineer R&D Laboratories, which designed them, and the Transportation Corps. These improved wanigans are: a twenty-four-man bunk or mess wanigan, 36 feet long, 10.5 feet wide and 94 inches high, weighing 10,000 pounds,

less chassis and sled; a twelve-man bunk or mess unit, the same height and width as the larger unit, but only 24 feet long, weighing 5,000 pounds, less chassis and sled; and a four-man reconnaissance unit, 14 feet long, 6 feet 6 inches wide and 6 feet 10 inches high, weighing 1,500 pounds, less sled.

The wanigans, built of plywood and insulating materials, can be completely disassembled.

TAOC in the Atomic Age

The quickly-shifting, ever-changing tactical situation that will face tomorrow's Army field commander demands a speedier method of control over dispersed tactical elements and a more refined means of selecting targets, determining target priorities, and coordinating weapons, aircraft, electronic equipment and combat surveillance elements.

To meet this challenge, Army Signal Corps has awarded a \$6,851,000 contract to Aerotronic Systems, Inc., a subsidiary of the Ford Motor Company, for development of a "tactical army operations center" (TAOC). The center, a highly mobile command post on wheels, will carry the necessary electronic equipment in large vans. A computer complex, data processors and visual display equipment make up the heart of this electronic operations control and will give the commander, in a matter of seconds, a visual appraisal of the tactical situation, using comprehensive, up-to-the-minute information, and enabling him to make rapid command decisions. The center will be used also to calculate damage from nuclear weapons and will retain all information recorded in its data storage equipment.

Rough Landings Made Easy

Army aviators are testing low-pressure pneumatic aircraft tires developed by the Goodyear Tire and Rubber Co.

Mounted with either Goodyear Airwheels or the wider twenty-four-inch Terra-Tires, Bird Dogs are being flown onto and off of plowed fields, rough forest clearings, marshes, beaches and snow-covered areas.



Cold-Cycle Jet Copter

The K-17, a cold-cycle pressure-jet helicopter developed jointly by the Army and Kaman Aircraft Corp., has made a successful first flight. The craft is powered by a Blackburn Turmo 600 gas turbine of 400 hp driv-



Kaman K-17 in flight with tailrotor stationary

ing a Boeing compressor located in the fuselage. Air from the compressor is ducted through the rotor hub, out through the rotor blades, and expelled through jet nozzles at the rotor tips, thus turning the rotor. This system eliminates the complicated transmission and clutch used in conventional helicopters. The K-17 has a small, fixed-pitch tail rotor used for steering only. Driven by a hydraulic pump, it rotates in either direction in response to movement of the rudder pedals and provides enough thrust to turn the helicopter.

All-Transistor Two-Way Portable

A completely transistorized version of the portable two-way radio, especially designed for military use by General Electric, features the country's first tubeless receiver. In place of the usual tubes, newly designed transistor tetrodes are used. Lightweight and compact, the hand-carried transmitter-receiver is sturdily built for serviceability and has modular construction, with the various stages easily removable for replacement. In addition all transistors are the plug-in type, allowing for quick removal without unsoldering. The sensitivity of the set (0.4 microvolts) provides more audible signals in areas where reception is normally poor, and the larger-than-usual speaker gives less distortion than expected in small portables.

Powered by large industrial-type batteries for long periods of operation without replacement, the GE portable, when on stand-by, uses less current than a small household-type flashlight. It was designed for operation on two frequencies, a necessity for those who must receive messages from other communications systems as well as from their own.

Inflatable Rubber Aircraft

Under a contract jointly sponsored by the

Army's Transportation, Research and Engineering Command and the Office of Naval Research, Goodyear Aircraft Corp., has built a two-place version of its pneumatic rubber aircraft, the Inflatoplane. The compact packag-



New two-place version of Goodyear's Inflatoplane

ing (44 cubic feet) and its light weight (290 pounds, empty) make the Inflatoplane well-suited in Army field operations to provide aerial reconnaissance for almost any type of

unit without sacrificing any of its mobility.

Pumped up with eight pounds of air the craft is 19.2 feet long and has a 28 foot wing span. A 65-hp motor, supplied by a 20-gallon fuel tank, drives the ship at a top speed of 80 mph, a cruising speed of 70 mph. Service ceiling is 16,000 feet and the plane can fly 2.5 hours on one tank of gas.

Radiological Surveys by Air

The Radiological Branch of the Army Chemical Corps School at Fort McClellan, Ala., has been studying the feasibility of conducting radiological surveys from aircraft. Tests were conducted over the school's 1.75-mile "hot" field in which radioactive contamination conditions are reproduced by means of point sources of Cobalt-60 buried in wells. These sources are elevated when the field is in use, and at other times are lowered back into the wells, which are covered with locked lead caps to prevent tampering. Aerial surveys, though relatively inaccurate, proved feasible when time limitations or circumstances, such as enemy action or radioactivity too "hot" for safety, preclude a more exhaustive ground survey, or when only general information on contamination is sufficient.

HOT SPARKS

Successful tests have been made on key components of Project Plato, the mobile anti-missile missile system being developed by ABMA and Sylvania Electric Products, Inc. The new system, designed to use the Nike-Zeus missile, has been in the works for almost four years. Because of the magnitude of the multi-million-dollar project, facilities of other companies are under subcontract. These include General Electric, American Machine and Foundry, and Sanders Associates of Nashua, N. H.

The Army has selected the Martin Company as systems contractor for the Pershing Missile, the Army's newest ballistic missile. Martin's Orlando, Fla., plant will carry out the research and development, testing and production not only of the missile itself but of the associated ground equipment systems. The Pershing will be lighter, smaller and more mobile than the Redstone, which it is destined eventually to replace.

The Army has awarded a \$51,500,000 contract for production of M59 amphibious armored personnel carriers to Ford Machinery and Chemical Corp. This is the largest contract so far for the M59, its mortar-carrying twin the M84, and the similar but lighter, air transportable T113.

The Army has awarded a \$97,000 contract to the Skagit Steel and Iron Works for construction of two prototype self-powered cableway cars for the Transportation Corps ship-to-shore aerial tramway system. De-

signed for operation on a continuous circuit tramway, the cars will travel over a one-mile-long cable supported by 75-foot-high steel towers resting on self-elevating spud barges.

An electronic test system which presents X-ray images via a television screen is being constructed for the Army by Allen B. DuMont Laboratories. It was designed to detect hidden flaws in armorplate or other metal castings. The X-ray picture is viewed on a regular TV screen but sections of the test pictures can be recorded by camera, either movie or still.

The Avco Research and Advanced Development Division will move into a new \$15 million scientific center at Wilmington, Mass., this summer. In less than three years of operations Avco's Research Division has grown until it now employs more than 1,700 scientists, engineers and associated workers.

Several hundred of the new plastic artillery cartridge case recently developed for the Army [ARMY, January 1958] by the Naval Ordnance Laboratory will be manufactured under a development contract by Tube Turns Plastics, Inc. These cases will be field-tested by the Army at Aberdeen Proving Ground. In previous tests the cases, formed by the injection molding process, which gives the plastic higher density and more complete homogeneity, have successfully withstood gas pressures from 6,000 to 35,000 pounds per square inch and flame temperatures of some

4,000 degrees Fahrenheit at the instant of firing. The cases emerged from the test gun virtually unscathed, some being reused as many as six times.

An important factor in the rapid loading and unloading of the Military Sea Transportation Service's new roll-on-roll-off vessel Comet is the all-aluminum ship ramps, largest portable ramps ever built. Designed to support a load of 120,000 pounds, these ramps have carried the weight of the heaviest U. S. Army tank.

A \$3 million military contract, first for major production of a helicopter gas-turbine engine, has been awarded the Lycoming Division of Avco Mfg. Co., for Lycoming T53-L-1 engines for use in the Army's Bell HU-1 Iroquois, utility helicopter and the Air Force H-43-B crash rescue helicopter. A turbo-prop version of the T53 will power the Army's Grumman AO-1 Mohawk observation plane. The T-53 is also being used in three VTOL/STOL planes made by Vertol, Ryan and Doak aircraft companies which are now undergoing initial flight tests for the Army.

A tiny new low-noise ceramic electronic tube developed by General Electric will provide superior performance in future high-frequency equipment. Better able to withstand high temperatures, shock and vibration than glass tubes, the new tube is only one half-inch long and one half-inch wide. It was designed primarily for use in military communications, radar and navigation equipment and is being produced currently on a sample basis for equipment designers.

THE MONTH'S BOOKS

Training and Weapons Guides

BASIC TRAINING GUIDE

Military Service Publishing Company, 1958
228 Pages; Illustrated; Index; \$3.50

NEW DEVELOPMENTS IN ARMY WEAPONS, TACTICS, ORGANIZATION, AND EQUIPMENT

By Capt. Marvin L. Worley, Jr.
Military Service Publishing Company, 1958
261 Pages; Illustrated; Index; \$3.50

Reviewed by

LT. COL. JOHN B. B. TRUSSELL, *Artillery, who recently returned to the Pentagon after a tour with a combat unit in the Far East.*

These two books are useful companion volumes for the professional soldier. Although they deal with fundamentals, both provide a convenient means to refresh knowledge gone a bit fuzzy in detail and to keep abreast of recent developments.

The new edition of *Basic Training Guide* brings up to date a manual which has for several years proved itself a useful tool. While not attempting to substitute for the appropriate field manuals, it performs the combined service for each topic of listing the references for more extensive study and of presenting the highlights of the subject under one heading. Other noteworthy features are the book's logical organization and extensive indexing. These characteristics should make it particularly appealing to soldiers either undergoing or conducting basic training; to company-level officers and noncommissioned officers engaged in training line units (especially when, as has sometimes been known to happen, the time for preparation of instruction is short); and even to some officers of field grade about to make inspections who are moved by an urge to impress the troops with the thoroughness and detail of their knowledge.

To present these days what the preface of *New Developments in Army Weapons, Tactics, Organization, and Equipment* calls "a digest of all important but unclassified new developments of general interest" is a hazardous undertaking indeed. No doubt the book had gone to press before the Army unveiled the new Sergeant missile, which would account for the omission of this weapon in the chapter on artillery. Captain Worley must not be judged too harshly, therefore, if his book fails to live up fully to the ambitious objective stated in its pre-

face. At the same time, it is hard to justify the failure to include descriptions of certain important radars, for example, or flow-of-data diagrams of the fire-control systems of several of the missiles.

In his treatment of new organizations and tactics, Captain Worley has accentuated the positive improvements without critically evaluating (or even acknowledging) the price that has been paid to achieve them. In other words, he speaks glowingly of capabilities without analytical discussion of limitations. Even so, his coverage of these subjects in particular is excellent.

Altogether, to the person who must depend for his primary source of information of new weapons and tactics on occasional newspaper items and uncolated articles in service journals, Captain Worley has rendered a distinct service by providing a clear, straightforward and authoritative compilation of valuable data.

Strategy in the Nuclear Age

THE GREAT DETERRENT

Marshal of the RAF Sir John Slessor
Frederick A. Praeger, 1958
322 Pages; Index; \$6.00

Reviewed by

STEFAN T. POSSONY, *author of several books on military subjects and Professor of International Politics at Georgetown University.*

Sir John Slessor has become one of the most stimulating military writers of our time. He is open to new ideas, invents quite a few himself, continuously is casting a critical eye on military shibboleths and traditions which may be harmful to our defense posture and purse. His outlook is far broader than that of a British pioneer of air power. He is British, but he knows the American defense problem and is an expert in NATO matters. He is a master in questions of air strategy but deals expertly with world strategic problems as they affect all weapons systems and services. Neither this reviewer nor any other knowledgeable reader will agree with Sir John on every point, but no one will deny that every argument presented by him was well worth making and needs our full and sympathetic attention.

This book is a collection of twenty-three pieces written between 1933 (when Sir John presented a searching analysis of the German war plan of 1914) and

1957 when he analyzed British defense policy. In this span of twenty-four years the author tackled many different military problems with insight and discrimination. So many questions were raised that it is impossible to summarize briefly what the "message" of the book is. The recurrent theme is indicated by the title. "As long as aggression carries with it the certainty of instant annihilating retaliation, it would indeed take a lunatic to accept the risk; and I doubt whether paranoiacs of that order of lunacy ever have the life or death of a nation at their command. People like Khrushchev and Molotov may be pretty pathological cases, but they are not all that crazy—nor do they have the power to play ducks and drakes with the existence of Soviet Russia."

This reviewer does not entirely accept Slessor's thesis, for both psychological and technological reasons, but he does not deny its plausibility for most cases of deliberate aggression. The contention that "for the first time in history the nuclear weapon provides the basis for a truly stable military environment" surely is debatable in view of the continuous change in the technological environment. Firepower possibly has reached a point of limit, but there is nothing stable about weapons carriers, instruments, defenses, and the like. Still, if the destructiveness of firepower should become relatively stable, this factor should influence defense planning more than it does.

It is true that henceforth an aggressor will find it increasingly difficult to launch an unnecessary total war, a fact which as Slessor cogently suggests, should give the free nations ample opportunities to take care of their security problems by initiative rather than timid reactive performance.

The main impression which this book made on this reviewer hardly was intended by the author to be the main message: That the three services, but especially the armies and navies of the NATO nations, are very slow in coming to grips with the realities of modern war. Escapist arguing about the capabilities and limitations of modern weapons and about the "mission" of the services helps to perpetuate out-of-date systems. The continued need for all the services is beyond question for both the author and the reviewer. But it is doubtful that the services are acquiring the weapons systems

which they will need in future wars. Refurbishing of World War II systems simply will not do. Interservice struggles have blinded each service to its own specific problems and priorities, and even interests. If the services would wake up to the realization that in the nuclear age there are ample tasks for all, the first step toward a long overdue and drastic modernization of the military establishment in its entirety would have been made.

Thirty Days on the Line

THE CLAY PIGEONS OF ST LÔ

By Col. Glover S. Johns, Jr.
Military Service Publishing Company, 1958
257 Pages; Maps; \$5.00

Reviewed by

MAJOR JOSEPH H. EWING, Infantry, USAR, rifle platoon leader in the 175th Infantry (29th Division) during World War II, and author of his division's history, 29, Let's Go!

During the 29th Infantry Division's drive from Omaha Beach to St. Lô in the Normandy Campaign of 1944, a war correspondent dubbed the 115th's 1st Battalion the "Indestructible Clay Pigeons" because its forward positions in the hedgerows made it a choice target for enemy attack.

Colonel Johns has written an engrossing account of these "Clay Pigeons," picking up the story on 17 June, three days after he took command of the battalion (as a major), and ending it with the occupation of St. Lô, the XIX Corps objective, on 18 July.

In effect, his book puts the reader on a thirty-day tour of TDY with a front-line battalion, and gives him a clear, close-up picture of hedgerow war. Told from the battalion headquarters level, the narrative permits the reader no chance to slacken interest, for the author has spotted the story with an abundance of interesting incidents, some of them highly humorous, others pathetic or tragic.

For a story that is almost a documentary Colonel Johns creates an unusual amount of suspense. In this respect, his detailed account of the hours preceding the enemy's night attack in the Bois de Bretel is superb. Those portions of the story which recount the author's reactions to situations which confronted him as battalion commander should be especially valuable to young line officers. You become intimately acquainted with "Major Johns," and are permitted to follow his mental estimates, and the reasons for his decisions, although he uses a minimum of formal military English.

We see him under fire for the first time as a commander, and are given a fine description of the confusion and vagueness of a battle situation in the hedgerows. Later we see him pacing out-

side his CP during a night counterattack, his radio and wire communications out, and no other way to determine the progress of the battle than by listening to the sound of small-arms fire.

The author appears to take delight in being frank, particularly about himself. He lays open to observation his self-confessed mistakes, his personal fears, and his periodic resentment toward regimental S3, with whom he conducts a minor war of his own. He admires the division commander, yet he doesn't hesitate to curse "Division." "That goddam Division!" he writes. "The ornery SOB's wouldn't believe what we told 'em. I hope that bunch of Krauts gets clean through to where they are. . . . Maybe they'll believe us then."

A host of characters appear in the book, get wounded or killed or miraculously continue to live on unscathed. These are battalion staff members, company commanders, platoon leaders, radio men, runners, forward observers, regimental commanders and others. Major General Charles H. Gerhardt, the division's fiery commander, makes four interesting appearances.

Colonel Johns explains much for the benefit of the civilian reader, such as the intricacies of the battalion communications net, the effect of a TOT, the workings of the fire direction center, and the unpopularity of the dinner unit of the K ration. He also interrupts his story from time to time to make general observations on war and the nature of battle. These, incidentally, comprise some of the best passages in the book.

The author tells his story in the third person, which makes for rather uncomfortable reading in the early pages, but you soon forget about the construction, and are plunged headlong into a gripping story. Except for the end sheets, the book is without maps or sketches. They would have helped to pin down the hedgerows, woods, trails, and sunken roads, which are frequently referred to.

For the combat veteran, *Clay Pigeons of St. Lô* will leave him deep in his wartime recollections. For anyone interested in the American soldier in battle it is a splendid book that tells a story as exciting as it is honest.

A Latter-Day Lawrence

A SOLDIER WITH THE ARABS

By Lt. Gen. Sir John Bagot Glubb
Harper & Brothers

458 Pages; Illustrated; Maps; Index; \$6.00

Reviewed by

H. A. DEWEERD, former associate editor of INFANTRY JOURNAL, who has written several articles on military operations in the Middle East.

Like T. E. Lawrence, his more famous predecessor, there was always an element

A Book-of-the-Month Club Selection

THE MOUNTAIN ROAD

A NOVEL BY

THEODORE H. WHITE

Author of *Fire in the Ashes*, etc.

A story of a violent week in 1944, centering on an American demolition unit isolated in the great China retreat.

"Much more than a novel . . . The sharpest and clearest picture of China of the middle 40s ever portrayed." — Paul G. Hoffman

"An absorbing reading experience. Not only a poignant portrait of a people, it is enthralling reading." — Virginia Kirkus

"I have long known White as a superb journalist. It is exciting to know him as a superb novelist." — Roscoe Drummond

At all bookstores, \$3.95



WM. SLOANE ASSOCIATES

of mystery about Sir John Glubb, commander of the Arab Legion from 1939 to 1956. His military skill and organizing ability, plus a substantial British subsidy, helped to keep alive the frail Kingdom of Jordan. When Glubb was unceremoniously dismissed by King Hussein in 1956, men wondered what was behind his dismissal and what kept him at his uncomfortable post so many years. This book helps clear up both mysteries. Glubb served the Arabs in spite of considerable abuse and very little appreciation of the work he was doing, for an emotional reason: he loved them. As for his dismissal, one wonders, after reading this book, why King Hussein kept him around as long as he did. For all Glubb's simple-minded loyalty, the Arab leaders never really trusted him.

In the savagery of Middle East politics and war from 1946 to 1956, Sir John seemed to move like a Salvation Army captain among a gang of assassins. To his way of thinking politics and history were matters of "right" and "wrong." The terrible issues of Middle East affairs seem crystal clear to him. All the black is on the side of the Israelis and all the white is on the side of the Arabs. To the world of 1958, faced with the threat of communism or nuclear destruction, Glubb offers this kind of Sunday School advice:

Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books may appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service.

BRITISH HISTORY OF THE SECOND WORLD WAR. British Information Services, 1958. *Allied Military Administration of Italy, 1943-1945.* By C. R. S. Harris. 479 Pages; Illustrated; Maps; Index; \$7.82. Recounts the military arrangements, from the invasion of Sicily to the collapse of the German occupying forces, by which civilians behind the advancing Allies were enabled to survive the shocks of war and prepared to resume their place among the liberated nations. *The War Against Japan; Volume I: The Loss of Singapore.* By Maj. Gen. S. Woodburn Kirby, with others. 568 Pages; Illustrated; Maps; Index; \$10.22. Covers the reasons for the Allied defeats in the Far East in 1942, from the loss of Hong Kong to the Japanese conquest of the Netherlands East Indies. Most of this volume describes the retreat down the Malaya peninsula and the withdrawal to and surrender of Singapore Island.

THE CHURCHILLS. By A. L. Rowse. Harcourt Brace & Company, 1958. 430 Pages; Illustrated; Index; \$7.50. The story of a famous family from the death of Marlborough: Georgian soldiers, statesmen and archbishops; Regency rakes and eccentrics; Victorian reformers and worldly Edwardians to today's warrior-statesman.

THE FATE OF THE MAINE. By John Edward Weems. Henry Holt & Company, 1958. 207 Pages; Illustrated; Index; \$3.95. A dramatic story of the USS *Maine* from keel-laying to burial in 1912. Its destruction on the night of 15 February 1898 and the conflicting court inquiries are reconstructed from newly found source material.

FLIGHT INTO SPACE: The Facts, Fancies and Philosophy. By Jonathan Norton Leonard. Modern Library, 1958. 306 Pages; Index; \$9.50. A new edition of a prophetic and authoritative book on man's

conquest of space, with up-to-the-minute revisions, by the science editor of *Time*. Has much material that was classified when the book was first published in 1953.

THE GREAT AGE OF DISCOVERY. By Paul Herrmann. Harper & Brothers, 1958. 507 Pages; Illustrated; Maps; Index; \$6.00. The story of the men, from Columbus to now, who opened up the unexplored seas and lands. A vast narrative, rich in personalities, fascinating curiosities and little-known footnotes to history.

THE ONE THAT GOT AWAY. By Kendal Burt & James Leasor. Ballantine Books, 1958. 238 Pages; Illustrated; Maps; Paper \$5.00, Cloth \$3.95. The fantastic but true account of the escape and pursuit of Luftwaffe Lt. Franz von Werra in England in 1940.

READ FASTER—AND GET MORE FROM YOUR READING. By Nila Banton Smith. Prentice-Hall, 1958. 393 Pages; Illustrated; Index; \$5.95. The author's own tested methods used in NYU's Reading Institute, where students have increased reading speed by 300 to 800 words a minute, and rate of comprehension by as much as 20 to 60 per cent. Easy step-by-step methods.

THUNDER AT HARPERS FERRY. By Allan Keller. Prentice-Hall, 1958. 282 Pages; Illustrated; Index; \$4.95. A vivid account of John Brown's raid on Harpers Ferry in 1859, designed to free the slaves in the South, and how it was met by unorganized citizens and militia and routed by a detachment of U. S. marines under Col. R. E. Lee assisted by Lt. J. E. B. Stuart. A fine job of reporting, by a staff writer for the New York *World Telegram and Sun*.

President Truman's Middle East policy may have been dominated by concern for Jewish votes. His identification with the Arab cause colors all his statements about the conflict which raged in this area for years. The Israelis were always to blame. Whenever there was a massacre or border raid, Glubb has an explanation. For example, "I do not think that the Arab Legion had been guilty of such ruthlessness." Or again, after the ambush of an Israeli bus on the Eilat-Beersheba road on 17 March 1954: "I was almost completely convinced that we had nothing to do with this crime. . . . This was the work of nomads or semi-nomad tribesmen. . . . I was almost able to guarantee that no Trans-Jordan bedouins were involved—I knew them too well." Who but Glubb could expect his readers to "buy" words of this sort?

Sir John looks for further trouble in the Middle East. He thinks that Israel has to terrorize its neighbors in order to survive. But, he writes: "Time is on the side of the Arabs. Some day they will cooperate and then they will endeavour to wreak a terrible vengeance. Generations may pass before this problem is solved, but it is difficult to believe that Israel can finally solve it by force. She must either conciliate Asia, or sooner or later, Asia will overwhelm her."

Air History

A HISTORY OF THE UNITED STATES AIR FORCE, 1907-1957

Alfred Goldberg, Editor
D. Van Nostrand Company, 1958
277 Pages; Illustrated; Index; \$6.75

FIVE DOWN AND GLORY

By Capt. Gene Gurney; Lt. Mark P. Friedlander, Editor
G. P. Putnam's Sons, 1958
302 Pages; Illustrated; \$5.75

AMERICAN ACES IN GREAT FIGHTER BATTLES OF WORLD WAR II

By Edward H. Sims
Harper & Brothers, 1958
256 Pages; Illustrated; Index; \$3.95

Reviewed by

BRIG. GEN. WILLIAM B. BUNKER, USA, student of aviation and military airpower, who has served in joint operations with the Air Force's transport service in Germany, the United States, and Korea.

A generation ago military circles were being considerably upset by the crusades of those who claimed that warfare of the future could be drastically altered in scope and objective by the proper and full exploitation of airpower. They argued for a military philosophy that ignored man's traditional objectives of strategic geographic position and the opposing armies, and concentrated a maximum effort against the homes and productive capacity of the enemy nation. A combination of personal terror, political chaos

"It is essential for us to study what methods can be adopted to protect mankind from the evil thoughts, false beliefs, and vile suggestions deliberately projected into their unthinking minds by wicked men."

So long as Glubb Pasha stuck to soldiering, his achievements were remarkable. He trained the Arab Legion until it could perform up to British standards on the parade ground and on the battlefield. It was—and may still be—the most formidable military force in the Arab Middle East. The fighting qualities of the Arab Legion, perhaps more than any other force, kept Israel within her initial boundaries. If Glubb failed to win the trust of his political superiors, it is clear

that he won the hearts of his troops. He seems to have been a highly emotional man, breaking into tears on various occasions, such as when King Abdullah was murdered, or when, after weeks of abuse in the Jordan press and radio, he (Glubb) was cheered by a crowd in Amman. In one short paragraph about his dismissal in 1956, Glubb has three sets of people "breaking into tears." This seems to be a record for a volume of military memoirs.

Sir John thinks the creation of the State of Israel was a tragic mistake. He blames the British Labour Party politicians for scuttling out of Palestine under circumstances which made an Arab-Israeli war inevitable. He suggests that

and industrial strangulation could, they said, bring victory without the necessity of sacrificing hundreds of thousands of the nation's youth on the gory mud of battlefields. Not only were these young pioneers opposed by military strategists and leaders who felt they oversimplified the complex nature of war; they stirred up the moralists who felt that the horror of this new warfare was such that thinking mortals could not allow it to happen and that the mutual retaliatory threat could keep nervous fingers off triggers.

Today we find ourselves in a parallel situation, with the long, shiny noses of intercontinental missiles threatening an impersonal Armageddon half a world away. There are those who seriously say all our military effort should be placed in these new birds; that warfare on the ground and, indeed, past types of air war, are no more. Others doubt the broad application of a new one-weapon, pushbutton warfare; some say the new mutual interdiction of terror is indeed a guarantee of peace; and there are moralists who plead for international renunciation of such inhuman and senseless devices. Even within the Air Force itself can be heard echoes of a familiar problem as its leaders argue for new, better, and longer-range manned bombers in the day of the impersonal missile.

The results of the current dilemma of military strategy may not be the same as its predecessor, but an evaluation of the past does help in appreciating the present, including current, comments to the effect that perhaps the best solution to some of our problems is to recombine Army and Air Force.

A History of the United States Air Force is a well-prepared, beautifully illustrated and readable sketch of the background of U. S. military aviation and a rather complete discussion of the organization and units of today's Air Force. Although it contains a few sections, such as discussions of the Comptroller and the Judge Advocate that read like dull copy from an organizational manual, it is interesting even to the military professional. Most significantly, even the most biased ground soldier would have to admit that it is remarkably objective. It sets the pattern, now confirmed by the Secretary of the Air Force, for example, which admits that while General Mitchell was visionary and prophetic, he was not a good soldier and failed as a salesman when he made the customer angry. As one involved, this reviewer is pleased to note that the Army gets credit for loading the aircraft on the Berlin Airlift. For the Army man who would gain more understanding of the system of organization, for the citizen who would like to know something of the agency using most of his tax dollars, and for the student of government, this is a valuable and easily digestible volume.

The march of events has already made one air mission, at least, obsolescent. As we listened to briefings in Korea, sometimes we were struck by the unprofitable nature of fighter tactics when told that eighty of our jets tangled with fifty-seven Communists, with one destroyed and one damaged on each side. With fighters now travelling at twice the speed of sound and rocket-firing controlled by elaborate black boxes, the air fighter is as obsolete as the cavalry trooper. It is interesting, however, to review the stories of those who engaged in a form of aerial combat which approached the personal nature of war experienced by the infantry soldier. *Five Down and Glory* is an excellent tabulation of personal aerial combat, and a discussion of this aspect of air warfare from the time pilots decided to have at each other. As a complete tabulation of all officially designated "aces" of the U. S. air arms, it is somewhat less interesting to the ground soldier, and the value of establishing an official designation of this sort could be questioned.

American Aces purports to be a closer analysis of the make-up and psychology of the successful fighter pilot, but to this reviewer it reads more like a Tom Swift story, and the monotony of pulling up on that Messerschmitt, Zero or Junkers until the gunsight ring is filled, leaves me a little cold. I think I can recommend it only to a young teenager as an adventure story of a rapidly disappearing remnant of the glamor of past wars.

The Air Force's writing fraternity is to be complimented, however, on the success with which it continues a steady stream of good-quality books before the public. They cover the spectrum of tastes from adventure stories to military philosophy, and keep the public attuned to their thoughts. Each of these examples is sure to find an appreciative audience somewhere in the reading public.

The Current Asian Scene

THE RISE OF MODERN ASIA

By Ian Thomson

Pitman Publishing Corporation, 1958
265 Pages; Illustrated; Index; \$4.95

Reviewed by

ROBERT N. WALKER, Ph.D., Adjunct Professor at The American University in Washington and consultant to the Office of Special Warfare, Department of the Army.

British author Ian Thomson's book is worth reading and worth owning for those who want in one volume a *tour d'horizon* of the developmental and contemporary conditions of each of the Asian (including Near East) countries. It is remarkable for clarity, conciseness and timeliness. The style is most readable, and each page seems to have had the benefits of repeated rewriting. The book was pub-

lished on 14 February 1958, the date the union of Jordan and Iraq was announced. Mr. Thomson treats Jordan and Iraq as a unit—an example of his book's value in keeping the reader up to date on the Asian scene.

Part I surveys the history of Asia from the beginning of our century to the end of World War II. Despite the scope and brevity with which the story is told, human-interest items and dramatic, intimate glimpses of such figures as Sun Yat-sen, Kemal Ataturk, and Chiang Kai-shek are vividly presented. The recent history and present status of each Asian country are discussed in Part II. The present turmoil in Indonesia and the political situation in the Philippines since the tragic death of President Magsaysay are examples of this section's content.

How far is Asia a unity? What is Asia's role in world affairs? What outworn attitudes linger to interfere in East-West understanding today? These are a few questions Mr. Thomson attempts to answer. Maps and illustrations enhance his work.

Mr. Thomson says, "Not to know about Asia is to be out of touch and out of focus." More and more Americans, aware of this truth, are concerning themselves with Asian matters. Time is running out, and it is to be hoped that more of us will take steps to be forearmed with the knowledge so desperately needed in order to do those actions most imperatively required to keep our few friends in Asia, and to avoid actions which will estrange still more the masses of Asia from us. So long as communist propaganda is apparently in the ascendancy in the underdeveloped areas of Asia, and the present lack of cohesive and unified policies continues to characterize Western courses of action to stem this rise, books like Mr. Thomson's cannot be in vain.

Our Great Deterrent

SAC: The Strategic Air Command

By Richard G. Hubler

Duell, Sloan & Pearce, 1958
280 Pages; \$4.50

Reviewed by

COL. GEORGE I. FORSYTHE, Infantry, former member of AUSA's Executive Council and recent Army graduate of the Air War College.

When a Marine undertakes any task he can be expected to go all the way—even when writing a book. Marine Corps veteran Hubler, in telling the story of the Strategic Air Command, displays this attribute. The author's purpose is to present and interpret a vast body of information about America's total war deterrent.

In presenting this information he does a superior job—obviously based on a thorough study of the records pertaining to

the growth of strategic air power and close personal contact with the men who have forged and led SAC. With only a few minor exceptions, his account is a useful source of accurate, unclassified information on the creation, equipping, training, manning, deployment and employment of America's long-range nuclear striking force. Herein lies the principal value of the book.

In attempting to interpret the meaning of strategic air power in terms of the free world's struggle against the Communist threat, Hubler shows, most convincingly, how indispensable and vital a ready, first-rate, air-nuclear delivery system is to the free world as it faces the growing and awesome military might of the USSR. While few will question his argumentation as to the importance and effectiveness of SAC as a total war deterrent, his claim that this "Super Force" transcends all other forms of force as the military answer to America's problem of coping with all forms of Communist expansion is much less than convincing. Hubler all but ignores the military need for forces of lesser intensity and greater discrimination capable of dealing effectively with the current and probable future forms of Communist intrusion—subversion, economic penetration, *coup d'état* and creeping aggression—a pattern probably induced by the nuclear stalemate. Too little consideration is given to the very real and important impact of political and psychological restraints on the use of weapons of mass destruction in situations short of total war.

If one wishes to acquire an insight into the thinking of the "all-out" SAC advocate, he will discover this truly dedicated, sincere but somewhat narrow and rabid viewpoint expressed most faithfully in Hubler's interesting book.

Morgan's Day of Glory

THE BATTLE OF COWPENS: The Great Morale-Builder

By Kenneth Roberts

Doubleday & Company, 1958

111 Pages; Illustrated; Maps; Index; \$3.50

Reviewed by

LYNN MONTROSS, U. S. Marine Corps historian and author of *Rag, Tag and Bobtail: The Story of the Continental Army*.

This slender book, originally an abridged magazine article in the now defunct *Collier's*, is the last piece of historical writing finished by the late Kenneth Roberts before his death in July 1957.

It is not, unfortunately, his best. It is marred by the chip-on-the-shoulder approach which detracted so often from the interest and accuracy of Mr. Roberts's other work.

In his very first sentence, for instance,

he begins, "The battle of Cowpens, which has been greatly misrepresented by many historians. . . ." He intimates that the facts are being presented by him for the first time, as if there was some conspiracy to suppress them. "Only the truth, freely told," he adds darkly, "can arouse any nation to a defense of its liberties."

Actually, the story of Cowpens has been told in detail by a dozen American historical writers from primary sources—and better told. It has been told in books and articles, including a 6,000-word piece in the December 1955 issue of this magazine.

Dan Morgan, it may be recalled, solved the problem of militiamen who were sure to run. He simply put them in the front line with permission to withdraw after firing three rounds. Then he re-formed them behind a ridge in the rear while the veteran Continentals of the second line fought off the Redcoats. And after marching his country lads almost entirely around the field, he used them to strike the decisive blow resulting in the destruction of Colonel Banastre Tarleton's small British force.

It was the tactical masterpiece of the Revolution. But it cannot be said that Kenneth Roberts has added anything in the telling. He will long be cherished for *Arundel*, *Northwest Passage* and some of his other early novels. But his writing grew more and more opinionated until his last three full-length books were devoted to an angry defense of the dubious art of water-dowsing. It is a pity that such a bright talent for historical fiction should have become so fond of controversy.

Negotiating in a Vacuum

PANMUNJOM: The Story of the Korean Military Armistice Negotiations

By Col. William H. Vatcher, Jr.

Frederick A. Praeger, Inc., 1958

322 Pages; Illustrated; Index; \$4.75

Reviewed by

COL. VIRGIL NEY, USA, retired, a contributor to ARMY, who served in Korea as Senior Advisor, Psychological Warfare, ROK Army.

Panmunjom represented a battleground between two ideologies: one dedicated to world revolution, the other to evolution; one seeking to impose its ideals by force or subversion, the other attempting to protect its ideals. Thus does Colonel (and Professor) William H. Vatcher, an active participant, succinctly define the meaning of Panmunjom in his preface. Here he explains the tactics and techniques of negotiation as employed by the Communists.

Historically, the armistice negotiations are perhaps an outstanding example of "dealing with the enemy" while still en-

gaged in combat. At least the situation, at best, was no more than a stalemate wherein kill-or-be-killed was the order of the day for both sides. Why the North Koreans and Chinese agreed to talk is somewhat puzzling, yet there were sound bases for it, like the demonstrated maneuverability of the UN forces in the Inchon landing and the terrible toll of Chinese "volunteers" taken by Ridgway's Operation Killer. Even for materialists, the cost in peasant bodies was too high a chit. Backed by the advice and suggestions of their Kremlin mentors, Chou and Mao pulled from the Communist propaganda bag of tricks a new one, "international poker," hitherto known as negotiation. Nam Il and his partners used delay, frustration, anger and sheer stupidity in this game, with Bluff, Threat and Time as trump cards from a deck marked "Made in Moscow." The stakes were high, with the lives of millions of men and the hopes of the world in the hands of the negotiators.

The fight for the agenda, led by the late Admiral C. Turner Joy, lasted for sixteen days. Finally, five basic items were agreed upon: (1) Adoption of an agenda. (2) Fixing a military demarcation line and establishing a demilitarized zone as a basic condition for cessation of hostilities. (3) Concrete arrangements for implementing the cease-fire and armistice, including the composition, authority, and function of a supervisory agency for carrying out the terms of the cease-fire and the armistice. (This is where the Communist-laden Neutral Nations Inspection Teams were let into the game.) (4) Arrangements relating to POWs. (5) Recommendations to governments of nations concerned.

With consummate patience, skill and dedication, Colonel Vatcher has put down in most readable form the *materia politica* of the 159 plenary sessions wherein the Rights of Man collided head-on with Marxian and Oriental Materialism. In the way of propaganda, Nam Il & Comrades made the most of Panmunjom as the principal battlefield of the "warm" war. That the U. S. representatives were obliged to deal with Chinese generals whose government, like that of North Korea, we do not recognize, was a definite propaganda scoop for the Reds. Much, much face!

The leadership of Admiral Joy and Lt. Gen. William K. Harrison and others is portrayed simply and even eloquently as they struggle, as honorable men of good will, expecting the enemy to meet them halfway, on a plane of logical, intelligent, reasonable negotiation. How, at Panmunjom, this was done, in spite of the fact that a plane of logic was actually never attained, is the theme of Colonel Vatcher's work.

Army officers, students of political sci-

ence and scholars can derive much from carefully reading this well-written volume. While there is no short course in how to deal with those who have no sense of absolute value, this work comes close to filling the void in our education as free men and as Army officers, against the time when we must know how to deal with those who hate us and seek our destruction. It provides an excellent picture of what went on, in and out of The Tent at Panmunjom. At first the POW issue was thought to be the conventional item, but here the UN achieved a great propaganda and moral victory, in brainflushing the brainwashed and causing thousands to reject communism for democracy.

Knives as Tools and Weapons

AMERICAN KNIVES: The First History and Collector's Guide

By Harold L. Peterson
Charles Scribners Sons, 1958
176 Pages; Illustrated; Index; \$4.95

Reviewed by

JAC WELLER, firearms consultant and honorary Curator of the West Point Museum, author of many articles on weapons history and firearms in general.

This book is about knives used in America from the earliest times to the present. A knife is both a weapon and a tool. Under primitive conditions which existed during Colonial times, and still exist in combat areas, both functions of a knife are extremely important. Mr. Peterson clearly and carefully evaluates the knife in relation to life in America, both past and present, with particular emphasis on the military and semi-military types.

This book is authoritative. The author draws on his great store of knowledge of armor and edged weapons in general, to show the types of knives and daggers originally brought to America. Long and careful research has been necessary to present a clear picture of the highly publicized and typical American Bowie knives. However, the more utilitarian models used by the tens of thousands by both white men and Indians during the last century in the West are also carefully discussed. The various models of U. S. military knives, including those recently sold in the many surplus houses, are authoritatively classified. Primitive Indian knives, naval dirks, and modern manufacturing processes are all described in detail.

This is an interesting book. The author clearly indicates that the knife will win no modern battles. However, its psychological value to a soldier alone at night is great. The knife has primitive appeal to men who must fight. The value of a good knife as both tool and weapon

is as great today as it was two hundred years ago.

Peterson's book is also completely charming. It is simply written and easily read. It appeals strongly to the small boy in each of us, as well as to advanced collectors. This reviewer was seriously tempted to order a modern knife "made to my personal specification." At my age and under my particular primitive living conditions, a special expensive sheath knife is hardly necessary.

Presenting America Abroad

IDEAS, PEOPLE AND PEACE
By Chester Bowles
Harper & Brothers, 1958
151 Pages; \$2.50

Reviewed by

COL. T. N. DUPUY, Artillery, President of the American Military Institute and co-author of *Military Heritage of America*.

As ambassador to India from 1951 to 1953, Mr. Bowles gained a reputation as one of the most effective representatives of the American people in our nation's diplomatic history. The forthrightness, the sincerity of purpose, the deep concern for the welfare of all his fellow men, the ability to present American ideals persuasively and articulately—in other words, the qualities which made Mr. Bowles's reputation as an ambassador—are all amply demonstrated in his latest book. And his successful ambassadorial experience gives particular weight to his comments, near the end of the book, on how America can best be presented abroad. Future students of U. S. diplomacy may well add Mr. Bowles's example to those which he gives of Benjamin Franklin.

But this is a confusing book, its objective never quite in focus. Apparently expanded from an article prepared for an *Encyclopaedia Britannica* yearbook, it is either too long or too short. In part it is an effort to portray objectively world conditions today, with primary emphasis on India—a subject on which Mr. Bowles is an unquestioned expert—and secondary attention to China. It is also an analysis of U. S. foreign policy, where Mr. Bowles's sometimes starry-eyed liberalism engages in frequent struggle with his hard-headed business realism. Finally, it has many overtones of a political pamphlet.

Obviously the book was hastily written. For example, facts and figures, even when presented in the most general terms, do not always stand up. And certainly Mr. Bowles knows that Benjamin Franklin was not accredited to the court of Louis XV. Finally, even the excellent writing which is to be found in various portions of the book cannot make up for the patchy job of putting those parts together.

YOUR LIBRARY IS INCOMPLETE without these classics from COMBAT FORCES PRESS

PSYCHOLOGICAL WARFARE

By Lt. Col. Paul M. A. Linebarger. One of the Army's top experts gives you clear, precise information on one of the most important but least understood aspects of modern war. *Revised edition.* \$6.00

ON WAR

By Karl von Clausewitz. Matthijs Jolles Translation. An analysis of the methods and purposes of war by the man whose thinking has dominated twentieth century warfare. \$5.00

INFANTRY ATTACKS

By General Field Marshal Erwin Rommel. A clear account of Rommel's experiences as a junior leader in World War I. Gives every leader valuable lessons to insure success of his mission. \$5.00

COMBAT ACTIONS IN KOREA

By Russell A. Gugeler. Terse, expertly constructed accounts of small unit actions in almost every conceivable kind of battle situation. One of the most valuable books any junior leader can own. \$5.00

COMBAT SUPPORT IN KOREA

By John G. Westover. In modern war, the front (and the enemy) may be almost anywhere. This book tells you how combat support units operated in Korea under this kind of pressure. \$5.00

Order From

COMBAT FORCES BOOK SERVICE

1529 18th St., N.W. Washington 6, D. C.



ASSOCIATION OF THE U. S. ARMY

Aims and Objectives

The Association of the U. S. Army shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its elements, branches, and components in providing for and assuring the Nation's military security.

Council of Trustees

CHAIRMAN
W. F. Rockwell
Pittsburgh, Pa.

Milton G. Baker
Lt. Gen. PaNG, Rtd.
Wayne, Pa.

Don Belding
Los Angeles, Calif.

Robert L. Biggers
Detroit, Mich.

Charles L. Bolte
Gen. USA, Rtd.
Washington, D. C.

Omar N. Bradley
General of the Army
Washington, D. C.

Lucius D. Clay
Gen. USA, Rtd.
New York, N. Y.

John E. Hull
Gen. USA, Rtd.
Washington, D. C.

Harry McK. Roper
Maj. Gen. USA, Rtd.
Washington, D. C.

David Sarnoff
Brig. Gen. USAR
New York, N. Y.

Officers

PRESIDENT
John Slezak
Mount Morris
Ill.

VICE PRESIDENT
M. B. Ridgway
Gen. USA, Rtd.
Pittsburgh, Pa.

VICE PRESIDENT
L. J. Sverdrup
Maj. Gen. USAR
St. Louis, Mo.

EXECUTIVE VICE PRESIDENT
W. L. Weible
Lt. Gen. USA, Rtd.

SECRETARY
Arthur Symons
Col. USAR

ASST. SECRETARY
Robert F. Cocklin
Col. USAR

TREASURER
Arthur S. Welch
Lt. NGUS

ASST. TREASURER
N. J. Anthony

Advisory Board of Directors

J. D. Atkinson, Washington, D. C.; William Balderston, Philadelphia, Pa.; Karl R. Bendtsen, Hamilton, O.; Richard S. Boutelle, Hagerstown, Md.

Lt. Gen. E. H. Brooks, Concord, N. H.; Harry A. Bullis, Minneapolis, Minn.; James F. Clark, New York, N. Y.; Gen. J. E. Dahlquist, Washington, D. C.; Paul L. Davies, San Jose, Calif.; Gen. J. L. Devers, Alexandria, Va.

Donald Douglas, Jr., Santa Monica, Calif.; Lt. Gen. M. S. Eddy, Columbus, Ga.; Malcolm P. Ferguson, Detroit, Mich.; Leonard K. Firestone, Los Angeles, Calif.

Rep. Gerald Ford, Washington, D. C.; Rev. R. I. Gannon, S.J., New York, N. Y.; Maj. Gen. C. C. Haffner, Jr., Chicago, Ill.; Gen. T. T. Handy, Washington, D. C.; Dr. John A. Hannah, East Lansing, Mich.; Maj. Gen. Jim Dan Hill, Superior, Wis.

Lt. Gen. C. R. Huebner, New York, N. Y.; Dr. Henry A. Kissinger, Cambridge, Mass.; Judge George Latimer, Washington, D. C.; Brig. Gen. Henry Cabot Lodge, Jr., New York, N. Y.; John H.

Lucas, Pittsburgh, Pa.; Brig. Gen. S. L. A. Marshall, Detroit, Mich.; Frank McCarthy, Beverly Hills, Calif.; Lt. Gen. T. H. Middleton, Baton Rouge, La.; Rep. Edward T. Miller, Washington, D. C.

Chap. (Maj. Gen.) Luther D. Miller, Washington, D. C.; Maj. Gen. Kenneth D. Nichols, Washington, D. C.; Gen. George Olmsted, Washington, D. C.

Frank Pace, Jr., New York, N. Y.; Col. William S. Paley, New York, N. Y.; Howard C. Petersen, Philadelphia, Pa.; Mark E. Putnam, Midland, Mich.; Ogden Reid, New York, N. Y.; Dean Rusk, New York, N. Y.; Maj. Gen. C. E. Saltzman, New York, N. Y.

Rep. Robert Sikes, Washington, D. C.; Sherrod E. Skinner, Detroit, Mich.; Charles M. Spofford, New York, N. Y.; Rep. Olin E. Teague, Washington, D. C.; Sen. Edward J. Thye, Washington, D. C.; Lt. Col. Jack Warner, Jr., Burbank, Calif.; Brig. Gen. R. E. Wood, Chicago, Ill.; Ben H. Wooten, Dallas, Tex.

Membership

General Membership. General Membership in the Association shall be open to any individual who has been honorably discharged or retired from the Armed Forces of the United States, to members of the National Guard of the United States not on active duty, to members of the United States Army Reserve not on active duty, and to such persons as have held appointive office in the Department of the Army.

Service Membership. Service Membership in the Association shall be open to all active-duty members of the Army of the United States.

Cadet Membership. Cadet Membership in the Association shall be open to the cadets of the United States Military Academy and to all current enrollees in Junior, Military Schools, and Senior Divisions of the Army ROTC Program, including those units pro-

vided for by Section 55c of the National Defense Act as amended.

Associate Membership. Associate Membership shall be open to active-duty personnel of the other services, to civilian employees of the Department of the Army not qualified for General Membership, and to any individual who supports the objectives of the Association and who meets such requirements as may be promulgated in regulations passed by the Council of Trustees.

Sustaining Membership. Sustaining Membership shall be open to such industrial, commercial, business, professional, technical and veteran firms, corporations, organizations or societies that wish to support the aims and purposes of the Association, subject to specific approval by the Council of Trustees.

AUSA REGIONAL ACTIVITIES

CHAPTERS

8th INFANTRY DIVISION CHAPTER—Brig. Gen. William F. Train, Chapter President, addressed 4 March meeting on AUSA's 1958 Objectives, and invited support of AUSA to "put the Army program before the public. . . ."

HAWAII CHAPTER—Maj. Gen. A. W. Stuart, CG USARHAW and 25th Infantry Division, addressed 17 April meeting on AUSA's objectives. Audience included leaders of the civilian community, and National Guard and Active Army personnel. After the meeting, the audience witnessed a review of the 25th, and training activities, including an Honest John firing. The members lunched at Army messes. Chapter strength now over 1,300.

INDIANA CHAPTER—Lt. Gen. Walter L. Weible, Executive VP of AUSA, addressed a dinner meeting 11 April, stressing the functions of a chapter in furthering the attainment of AUSA's objectives.

KENT-SUSSEX CHAPTER, Delaware—Charter meeting 25 April, at Fort Miles. Lt. Gov. David P. Buckson spoke on "The Security of the Nation," followed by Lt. Col. Oliver J. Cejka who outlined AUSA's Aims and Objectives and suggested methods for chapter participation in attaining the Association's goals. Maj. Gen. Joseph J. Scannell, Adjutant General of Delaware, presented the charter in the name of the Council of Trustees, AUSA.

MANNHEIM CHAPTER—Mr. D. A. Flinn, Department of State, presented the charter to the Mannheim Chapter at a dinner meeting 13 March. Presiding was Col. William Stricklen, Jr., Provisional President. Maj. Gen. Ralph M. Osborne made the principal address. Permanent officers were elected.

OZARK CHAPTER, Arkansas—Ozark Chapter's April meeting was held

in Fort Smith, Ark. Brig. Gen. Ralph H. Mace presented Chapter President James H. Clendening with a gavel and block to "Symbolize the cooperation between Fort Chaffee and the surrounding communities."

PIKES PEAK CHAPTER, Colorado Springs, Colorado—Pikes Peak's 29 March meeting combined skits, demonstrations and lectures conducted by the 9th Infantry Division, and a huge meeting at the Carson fieldhouse addressed by Col. Charles G. Patterson of the U. S. Army Guided Missile Agency. *Pentomic Army* film, and static display of artillery weapons including Honest John added to the program. Attendance was more than 3,000; Colonel Patterson emphasized that missiles and other new weapons increase the need for high-quality men. Civilian members were guests of the units which had been adopted by surrounding civilian communities.

SAN FRANCISCO CHAPTER—Lt. Gen. Charles D. Palmer, CG, Sixth U. S. Army, installed new chapter officers at meeting held 28 March at Presidio Open Mess.

SARASOTA-BRADENTON CHAPTER—Lt. Col. Kenneth E. Pell, artillery instructor at The Infantry School, addressed the 25 March meeting on the subject of guided missiles. MSgt John F. Chandler assisted Colonel Pell. Scale models of all unclassified missiles were shown. Meeting received good publicity in the Bradenton and Sarasota papers.

SOUTHEAST ALABAMA CHAPTER—Spring Festival meeting 24 April entertained members and guests with a huge outboard regatta and a demonstration of precision flying, including towing a water skier with a helicopter. Brig. Gen. William E. Brougner, USA-Ret., spoke on his experiences as a prisoner of the Japanese.

The Chapter has received a letter from the Chief, Army and Air Force Exchange Service, commending it on its successful efforts to gain the support of local merchants for the Exchange Service.

SIoux FALLS CHAPTER—Maj. Gen. John P. Daley, Office of the Chief of Research and Development, U. S. Army, addressed 26 March meeting on the general subjects of missiles and space. Meeting co-sponsored by Chamber of Commerce of Sioux Falls.

TRI-VALLEY CHAPTER, Fargo, North Dakota—Charter banquet held 29 March at Moorhead, Minn. Guest speaker was Brig. Gen. Briard

AUSA ELECTION RESULTS

Maj. Gen. Anthony J. Drexel Biddle, NGUS, of Philadelphia was elected President of the Association of the U. S. Army in the mail referendum of members. Samuel F. Downer of Colorado Springs, Colo. was elected Vice President. They will take office at the June meeting of the Council of Trustees and serve one year.

Four members of the Advisory Board of Directors were elected to the Council of Trustees for three-year terms and will take office at the June meeting of the Council of Trustees. They are:

Gen. John E. Hull, USA, Rtd., Washington, D. C. (reelected).

Gen. Jacob L. Devers, USA, Rtd., Washington, D. C.

Gen. John E. Dahlquist, USA, Rtd., Washington, D. C.

Lt. Gen. Manton S. Eddy, USA, Rtd., Columbus, Ga.



MANLIUS, N. Y. Maj. Gen. R. W. Barker, USA, retired, Superintendent of The Manlius School, presents AUSA Charter to Cadet George K. Montgomery, Captain of Manlius Company, at April meeting. Others in picture are, left to right: Cadet William E. Dauphin, First Lieutenant; Cadet Robert W. Swaney, Second Lieutenant; Major Edgar N. Millington, PMST and Faculty Advisor; Cadet William W. Rankin, First Sergeant; Cadet John J. Sullivan, Staff Sergeant.



MOORHEAD, MINN. Speakers' table at Charter Banquet of Tri-Valley Chapter at Fredrick-Martin Hotel, 29 March. Left to right: Col. S. E. Iverson, Corresponding Chapter; Lt. Col. Harry L. Snively, PMST, ND State College; Col. J. K. Addison, ND Military District; Brig. Gen. Briard P. Johnson, CG, XIV Corps (Reserve); Lt. Col. John R. Ulmer, ND AGO; Major Robert Ermentrout, CO, Army Recruiting Station at Fargo; Major J. L. Benshoof, President.



TOPEKA, KANSAS. Hon. Frank H. Higgins, Assistant Secretary of the Army (Logistics) congratulates Harry W. Colmery, President, after presenting charter to newly formed Topeka Chapter. Mr. Higgins was guest speaker at ceremonial dinner. At left is Hon. George Schnellbacher, Mayor of Topeka and First Vice President.



FORT BENNING, GA. Col. Charles B. Smith (left), CO, 15th Infantry, and First Vice President of the 3d Division's Marne Chapter, accepts charter from Gen. Charles L. Bolté, member of AUSA's Council of Trustees. Presentation took place at a dinner meeting in Main Officers' Mess.



FORT CHAFFEE, ARK. Brig. Gen. Ralph R. Mace (left), post commander, presents gavel and block to James H. Clendening, Fort Smith attorney and President of newly chartered Ozark Chapter, at April meeting.



SAN FRANCISCO, CALIF. Newly elected officers of San Francisco Chapter, installed at March meeting. Left to right: Lt. Gen. C. B. Ferenbaugh, First Vice President; Lt. Col. Philip J. Sinnott, Fourth Vice President; Lt. Col. Margaret M. Thornton, Third Vice President; Lt. Gen. Charles D. Palmer, CG, Sixth Army; William M. McNabb, President; Albert Leslie, Treasurer; Col. C. C. W. Allan, Secretary.



SCHOFIELD BARRACKS, T. H. Distinguished guests at Hawaii Chapter's April meeting. Left to right: Lt. Gen. R. M. Cannon, Deputy CinC and Chief of Staff, USARPAC; Lt. Gen. Donald P. Booth, High Commissioner, Ryukyus; Gen. I. D. White, CinC, USARPAC; Brig. Gen. Kendall J. Fielder, the Chapter's First Vice President.



NEW YORK CITY. Members of NYU Heights Company (not all present) pose for their Senior yearbook with Capt. William Stone (Faculty Adviser), at left.

P. Johnson, CG, XIV U. S. Army Corps (Reserve), Minneapolis. Program included R&D guided missile film.

WASHINGTON STATE CHAPTER NO. 1—Mr. Harry Goldie, Chief Engineer of Boeing's Missile Program, addressed a dinner meeting 14 April at the Fort Lewis Officers Open Mess. On behalf of national headquarters, Col. James Stack presented an AUSA Certificate of Appreciation to Maj. Gen. W. W. Quinn. Letters from Congressmen on AUSA objectives were read at the meeting.

WESTCHESTER COUNTY CHAPTER, New York—Film, *Pentomic Army*, featured dinner meeting 28 March.

ROTC COMPANIES

DAKOTA COMPANY, North Dakota Agricultural College—Col. Thornley Wells, former Mayor of Moorhead, Minn. was special guest and speaker for Dakota Company's annual banquet 20 March.

EASTERN CADET OFFICERS' COMPANY, Eastern Kentucky State College—Theme of 16 April meeting was investments for Army officers. Film, *Making Money Work*, and a panel of nine insurance representatives were features of the meeting.

EDMUND R. WALKER COMPANY, University of Connecticut—Plans under way for column on Company activities in the campus newspaper, a picnic, and orientation by the Senior cadets to prepare the Juniors for camp attendance. Meeting 10 April featured movie on Nike defense and talk by Captain Lavane of 11th AAA Battalion.

IDAHO STATE COLLEGE COMPANY—Company arranged military displays and demonstrations for Campus Day, 18 April, to inform high school seniors from the surrounding area about the ROTC program. Company will sponsor Armed Forces Day on the campus.

LASALLE ROTC COMPANY, LaSalle Military Academy—Lts. Frederick Walters and James Obine presented a program on Nike at LaSalle's first formal meeting 15 April. In addition to Company members, 43 Junior and Sophomore cadets, and Academy officials, attended the meeting.

LT. CHARLES J. FITE COMPANY, Gettysburg College—Company sponsored weapons display 12 April, Sub-Freshman Day, on the campus, also staged display at Military Ball, 14 April. Captured German films were shown at meeting 9 April.

THE MONTANA STATE UNIVERSITY ARMY ROTC COMPANY—Business meeting 1 April received reports on accomplishments of AUSA basketball team in the City League, and activities of Company-sponsored military bowling league. Reports on night field problem, held jointly with Pershing Rifles, indicated that valuable training resulted.



FORT BENJAMIN HARRISON, IND. Speakers' table at Indiana Chapter's April meeting. Left to right: Brig. Gen. Wendell C. Phillippi, Past President; Maj. Gen. David W. Traub, Director of Army Budget; Rep. William G. Bray, 7th District, Indiana; Lt. Gen. Walter L. Weible, AUSA's Executive Vice President; Maj. Gen. E. J. Bean, Chapter President; Maj. Gen. Carl O. DeBard, CG, 38th Division; Brig. Gen. John W. McConnell, TAG of Indiana and First Vice President; Maj. Gen. Paul A. Mayo.

Capt. R. D. Gilbertson conducted a question-and-answer session on orientation for the early days of active duty including attendance at service schools.

NEW YORK UNIVERSITY HEIGHTS COMPANY—Company was co-sponsor of the NYU Military Ball held at the Waldorf-Astoria's Starlight Roof 7 March. Other activities include handling communications for the national debates tournament, and acting as Honor Guard for a function at Hunter College. The ROTC Color Guard is composed entirely of Company members. The Heights Company is sponsoring a weekly film series dealing with military topics, a judo course open to all students, Company members assist in the Military Department Administrative Office, and in intramural sports.

"OLE MISS" COMPANY, University of Mississippi—Capt. Martin D. Howell, doing graduate work at Mississippi, addressed 13 March meeting on the advantages of life in the service, with special emphasis on the benefits of travel. A banquet meeting 22 April featured a panel discussion in which MS IVs answered questions on summer camp for the benefit of MS IIIs.

ROBERT E. SYLVEST COMPANY, Northwestern State College of Louisiana—Films, *The Red Bull Attack* and *Let's Go*, featured 10 April meeting.

SIOUX COMPANY, University of North Dakota—Cadet Donald E. Nygaard presented the movie, *The Challenge of Outer Space*, at meeting 8 April.

TULANE UNIVERSITY COMPANY—Charter presented by Col. D. E. McDonald 26 March.

V. RAYMOND EDMAN COMPANY, Wheaton College—Dr. Edman, President, Wheaton College, was elected Honorary Captain of the Company at meeting 27 March. The Military Department has assigned to the Company the task of making plaques for Distinguished Military Students. A 1957 graduate, Lt. Stewart Elder, spoke on the subject of a young officer's first year of duty.

VIRGINIA POLYTECHNIC INSTITUTE COMPANY—At meeting 3 April, the Company voted to present the outstanding ROTC junior a swagger stick, and to engrave his name on a trophy cup which would remain Company property. Cadet D. E. Butler was selected as the first recipient.

WASHINGTON AND JEFFERSON ROTC COMPANY—Meeting 16 April featured Col. Roger E. Higgins, Artillery, who showed slides of Korea and narrated some of his experiences there. Company made a field trip to a Nike site 18 April.

AUSA MEDALS AWARDED TO STUDENTS OF ARMY ORDNANCE SCHOOL

CAPT. OTIS J. DOTY	10 Oct 56	Class 9-0-4	No. 1
CAPT. JAMES S. SKELTON	21 Dec 56	Class 9-0-4	No. 2
CAPT. LEO F. OLSON	8 Mar 57	Class 9-0-4	No. 3
CAPT. JACK BRAMSON	24 May 57	Class 9-0-3	No. 1
CAPT. EUGENE J. D'AMBROSIO	7 Jun 57	Class 9-0-4	No. 4
CAPT. HAROLD O. PUTNAM	2 Aug 57	Class 9-0-4	No. 5
MAJ. CHARLES F. DEKYSER	20 Dec 57	Class 9-A-C4	No. 1

BOOKS OF PERMANENT VALUE

Practical Books to Help You Do Your Job Better

BOOKS TO HELP WITH DAY-TO-DAY DUTIES

THE ARMY OFFICER'S GUIDE.

By Col. Paul D. Harkins. Tells the new officer what to expect throughout his career. \$4.75

THE ARMY WIFE.

By Nancy Shea. Takes the mystery out of Army customs, gives helpful dope on all phases of Army life. \$3.50

ASSAULT BATTLE DRILL.

By Maj. Gen. James C. Fry. Battle formations and drills that will enable the small unit to assault a position effectively without detailed orders. \$2.50

COMPANY ADMINISTRATION & PERSONNEL SECTION.

By Col. C. M. Virtue. The most complete guide to company administration in print. \$4.50

COMPLETE GUIDE FOR THE SERVICEMAN'S WIFE.

By Elizabeth Land & Lt. Col. C. V. Glines, Jr. Complete advice on service traditions, protocol, locations, and economic facts of life for every service wife—seasoned or prospective.

Paper \$3.45

Cloth 5.00

PRINCIPLES OF PERSONAL FINANCE FOR SERVICE PERSONNEL.

By Associates in the Social Sciences, USMA. Good information on income, taxes, investments, managing income.

Save on every book you buy! Straight 10% discount to members. We pay all shipping charges except First Class or Air Mail.

Please send payment with order. Deduct your 10% discount before making payment. We cannot accept charge orders.

Many valuable suggestions for solving financial problems, Especially useful for younger officers. \$2.00

FOOD SERVICE FOR THE ARMY & AIR FORCE.

A practical guide to mess management. \$3.50

FRONTLINE INTELLIGENCE.

By Cols. Stedman Chandler & Robert W. Robb. Good intelligence is vital in battle. Here's how to get it at the front line level. \$2.50

HANDBOOK AND MANUAL FOR THE NCO.

Will help any NCO do his job with more confidence. Good dope on leadership, discipline, rights, duties of NCOs. Paperbound. Regular price, \$2.50. Special Price \$1.00

HOW TO SURVIVE AN ATOMIC BOMB.

By Richard Gerstell. A practical individual survival manual—things you can do to protect yourself. \$1.95

INFANTRY UNIT LEADER'S GUIDE.

By Maltop and Barrett. Guide to tactics and leadership of small units. \$1.75

INTELLIGENCE IS FOR COMMANDERS.

By Cols. P. B. Davidson & R. R. Glass. An aid to the commander in setting up an intelligence program and getting full benefit from it. \$3.85

MANUAL FOR COURTS-MARTIAL, 1951.

The manual which implements the Articles of the UCMJ. Useful for every officer and NCO. \$3.50

CUMULATIVE SUPPLEMENT TO MCM, 1956.

Brings the Manual for Courts-Martial up to date with current decisions and interpretations. \$1.25

MAP AND AERIAL PHOTOGRAPH READING.

A guide to reading and interpreting maps and aerial photos. \$2.75

MILITARY CUSTOMS AND TRADITIONS.

By Major Mark M. Boatner III. Our military customs and traditions, where they come from, and the purposes they serve. \$3.00

THE NONCOM'S GUIDE.

Contains regulations and other official information every NCO needs to know—all in one handy manual. Also good dope on leadership, discipline, service customs. A standard manual for many years, but revised and reprinted constantly—always up to date. \$3.00

NOTES FOR TROOP INSTRUCTORS

These handy sets of 3x5 cards give the instructor his lesson plan, references and notes all in one package.

AUTOMATIC PISTOL, CAL. .45 \$1.00

INTERIOR GUARD DUTY 1.50

MILITARY COURTESY AND DISCIPLINE 1.00

THE OFFICER'S GUIDE.

This is the original guide for the officer. Much useful information on all phases of Army life. \$5.00

REALISTIC COMBAT TRAINING.

By Lt. Col. Robert B. Rigg. How to get the sights, sounds and smells of combat into your training exercises. Paperbound. \$2.75

RIFLE SQUAD & PLATOON IN ATTACK.

By Major Frank F. Rathbun. Formations, attack plans for different situations. \$2.50

RIFLE SQUAD & PLATOON IN DEFENSE.

By Major Frank F. Rathbun \$2.50

ORDER FORM Combat Forces Book Service

1529 18th Street, N.W., Washington 6, D. C.

Name _____

Street Address _____

Town or APO _____ Zone _____ State _____

☐ I ENCLOSE \$ _____

Charge orders cannot be accepted. Payment must accompany order; take your discount in making out your check.

☐ I am a member of the Association and have deducted my 10% member's discount.

Straight 10% discount to members.

(CF 6-58)

RISKS: THE KEY TO COMBAT INTELLIGENCE.

By Col. E. C. Townsend. A constructive analysis of our combat intelligence methods, and how we can overcome certain deficiencies. \$1.50

STRATEGIC INTELLIGENCE PRODUCTION.

By Brig. Gen. Washington Platt, USAR, Rtd. Tells you what strategic intelligence is, who uses it, how it is produced. An excellent book for those just entering the field, or interested in learning basic information on the subject. \$4.00

HOW TO SURVIVE ON LAND AND SEA.

Naval Aviation Training Manual. Gives most modern techniques for survival on land or sea, in extreme heat or cold. Everyone who flies, or travels widely in thinly populated areas, should know the techniques in this book. \$4.00

LEARN MORE ABOUT GUNS, CARTRIDGES, BALLISTICS—THE TOOLS OF YOUR TRADE!

THE BOOK OF THE GARAND.

By Maj. Gen. Julian Hatcher. General Hatcher, Army ordnance expert, tells you all there is to know about the M1 Rifle. A complete manual. \$6.00

CARTRIDGE IDENTIFICATION—USEFUL KNOWLEDGE PLUS A FASCINATING HOBBY!

These books by B. D. Munhall and H. P. White show you how to identify center-fire pistol and revolver cartridges, give you the necessary data for each plus a full-size illustration.

VOL. I—METRIC PISTOL & REVOLVER CARTRIDGES \$7.50

VOL. II—AMERICAN & BRITISH PISTOL & REVOLVER CARTRIDGES \$7.50

COMPLETE SET—Special Price \$14.00

GUIDED MISSILES (From the AAA Journal).

This collection of articles gives you the fundamentals of guided missiles. Paperbound. \$1.00

GUIDED MISSILES IN WAR AND PEACE.

By Major Nela Parson, USA. The operation, military applications, and peace-time potentialities of guided missiles, written in nontechnical language. \$3.50

WHY NOT LOAD YOUR OWN?

By Colonel Townsend Whelen. This is a major revision, just published, of the clearest of all how-to-do-it books for handloaders. Contains new dope on powders, ballistic data—plus new tools and procedures developed in recent years. \$5.00

WINCHESTER: THE GUN THAT WON THE WEST.

By Harold Williamson. The fabulous history of a great arms company, plus detailed information & illustrations on Winchester guns and cartridges. \$10.00

THESE BOOKS ON LEADERSHIP, PSYCHOLOGY, BATTLE LESSONS WILL HELP YOU BUILD A BETTER OUTFIT.

COMBAT ACTIONS IN KOREA.

By Russell A. Gugeler. Terse accounts of small unit actions, with the battle lessons learned from them. \$5.00

COMBAT SUPPORT IN KOREA.

By John G. Westover. In modern war, the front line is likely to be anywhere. Read how combat support units operated in Korea under enemy pressure. \$5.00

INFANTRY ATTACKS.

By General Field Marshal Erwin Rommel. A clear account of Rommel's experiences as a junior leader in World War I. He points out valuable lessons for every leader to insure success of his mission. \$5.00

MEN AGAINST FIRE.

By Brig. Gen. S. L. A. Marshall. General Marshall's classic study of leadership—why some men fight and others do not—developed from post-battle interviews. \$2.75

THE RIVER AND THE GAUNTLET.

By Brig. Gen. S. L. A. Marshall. Leadership and morale as General Marshall saw them in Korea small-unit actions. \$5.00

PSYCHOLOGY FOR THE FIGHTING MAN.

The answers to what makes the fighting man tick, written in nontechnical language. Clothbound. \$1.50

PSYCHOLOGICAL WARFARE.

By Lt. Col. Paul M. A. Linebarger. One of the Army's top experts gives you complete information on this vital part of modern war. Revised Edition. \$6.00

THESE STANDARD DICTIONARIES, ATLASES & ENCYCLOPEDIAS WILL MEET DAY-TO-DAY REFERENCE NEEDS IN YOUR HEADQUARTERS AND YOUR HOME.

AMERICAN COLLEGE DICTIONARY (thumb-indexed).

Most complete and up-to-date college dictionary you can buy. \$6.00

ROGET'S THESAURUS OF WORDS AND PHRASES.

With this book around, you'll never have to grope for the right word. Completely cross-referenced. \$1.95

BASIC THOUGHT ON THE SHAPE OF MODERN WAR.

AMERICAN MILITARY GOVERNMENT.

By Hajo Holborn. Principles of military

government and how it worked in WW II by an authority in the field. \$3.50

THE EFFECTS OF NUCLEAR WEAPONS.

Edited by Samuel Glasstone. A new, much-needed book replacing the old *Effects of Atomic Weapons*. Covers both atomic and hydrogen weapons up to 20 megatons—shows the effects of blast, heat, radiation, fallout on people, buildings, open land—tells what steps you can take to protect yourself. \$2.00

ATOMIC WEAPONS IN LAND COMBAT.

By Cols. Reinhardt & Kintner. Two men who have been close to the development of tactical atomic weapons discuss their uses. \$3.95

MILITARY MANAGEMENT FOR NATIONAL DEFENSE.

By Brig. Gen. John R. Beishline. A management expert analyzes the application of management to our overall defense effort. \$6.00

MILITARY POLICY AND NATIONAL SECURITY.

Ed. by W. W. Kaufmann. Now that Russia is approaching nuclear equality with the U. S., what are the alternatives to all-out nuclear war? How can we forestall conflict, or limit it if it comes? What policy should we select to achieve this? Four outstanding military students examine these vital questions in this book. \$5.00

NATIONAL SECURITY AND THE GENERAL STAFF.

By Maj. Gen. Otto Nelson. A complete, unique study of the organization and functions of the U. S. general staff. \$5.00

STRATEGIC INTELLIGENCE.

By Sherman Kent. A clear analysis of the requirements of strategic intelligence and its place in modern war. \$3.50

WAR—1974.

By Robert B. Rigg. Written as a fast-paced novel, this is no fantasy. It is a studied military prediction of the shape of war to come, based on weapons now in being, or in test benches and drawing boards. The author is an officer of great ability and wide experience. \$5.00

FOR AUSA MEMBERS

FLAG SET.

United States and U. S. Army flags in handsome ebonized wood base. For desks, tables in headquarters, clubs, day-rooms, elsewhere. Complete assembly 5½" wide x 11" high. Member's discount applies. \$2.00

LAPEL BUTTON.

Handsome, gold-filled lapel button, faced with the AUSA seal. Diameter, 7/16". No discount. \$1.00

AUSA PLAQUE.

AUSA seal, molded in durable, gold-finished Burwood, 13" in diameter. An unusual decoration for headquarters, club or home. No discount. \$5.00

ORDER YOUR PERSONAL MEMBERSHIP PACKAGE — AND SAVE MONEY!

Now you can order all of your AUSA Membership supplies at one time—and save money. For just \$4.00 you get the new Association plastic brief case with plastic zipper closure, gold-filled lapel button, your personal set of U. S. and U. S. Army flags, and two Association windshield decals, which cannot be purchased separately. Total value of all these items is \$4.45. You save over 10%, and have the added convenience of writing just one order for all your membership needs.

HERE IS WHAT YOU GET IN YOUR MEMBERSHIP PACKAGE!



PLASTIC BRIEF CASE with plastic zipper closure in a handsome dark green—stamped with the Association seal in gold. Size is 11 1/2" x 14", big enough to handle your legal-size as well as letter-size papers.

Price if ordered separately\$1.25



GOLD FILLED LAPEL BUTTON, for wear with civilian clothes, always identifies you as an AUSA member. Buttons are 7/16" in diameter, and carry the Association seal.

Price if ordered separately\$1.00



U. S. AND U. S. ARMY FLAGS, each 4" x 6", gold-fringed, mounted on an ebonized-wood staff with a gilded spearhead. Staffs fit into a circular, ebonized-wood base. Each set comes in its own handsome box, so that it's easy to give these flags as gifts.

Price if ordered separately\$2.00



ASSOCIATION DECALS, for your car windows, show the Association seal in gold. Value 10¢ each. You get two decals as part of your Membership Package. Decals cannot be ordered separately in small quantities. For larger quantity prices, write the Association.

TOTAL VALUE OF SEPARATE ITEMS ABOVE\$4.45

PRICE TO MEMBERS FOR THE COMPLETE PACKAGE\$4.00

COMBAT FORCES BOOK SERVICE

1529 18th Street, N.W., Washington 6, D. C.

MICROFILMS
313 N FIRST ST
ANN ARBOR MICH